

SUSSEX

COUNTY LUNATIC ASYLUM

HAYWARDS HEATH.



THIRTEENTH ANNUAL REPORTS

FOR 1871.

LEWES:
PRINTED BY GEO. P. BACON, HIGH STREET.

1872.

C O N T E N T S .

	PAGE
LIST OF THE COMMITTEE OF VISITORS AND OF THE OFFICERS OF THE ASYLUM	3
THIRTEENTH ANNUAL REPORT OF THE COMMITTEE OF VISITORS (WITH BALANCE SHEET, &c.)	5
FARM AND GARDEN BALANCE SHEET FOR 1871	8
AN ABSTRACT OF THE ANNUAL RETURN OF PAUPER LUNATICS CHARGEABLE TO THE SEVERAL UNIONS AND PLACES IN THE COUNTY OF SUSSEX	9
THE MEDICAL SUPERINTENDENT'S THIRTEENTH AN- NUAL REPORT	10
THE CHAPLAIN'S THIRTEENTH ANNUAL REPORT	18
METEOROLOGICAL REPORT	20
THE REPORT OF THE COMMISSIONERS IN LUNACY	22
APPENDIX A.	
(1) THE TABLES OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, FOR 1871	27
(2) FINANCIAL AND DOMESTIC TABLES	41
APPENDIX B.	
CONTAINING CLINICAL NOTES BY THE MEDICAL OFFICERS, AND A PAPER ON THE EFFECTS OF METEOROLOGICAL FACTS ON INSANITY, BY THE CHAPLAIN.....	47

COMMITTEE OF VISITORS AND OFFICERS.

1872.

EASTERN DIVISION.

1. Burrell, Walter Wyndham, Esq., Cuckfield.
2. †Campion, Captain William Henry, Danny, Hurstperpoint.
3. Carpenter, Charles, Esq., Brighton.
4. Darby, George, Esq., Markly, Hawkhurst.
5. Day, John, Esq., Uckfield House.
6. *Godlee, Burwood, Esq., Lewes.
7. Hankey, John Alexander, Esq., Balcombe Place, Cuckfield.
8. *Laurie, Peter Northall, Esq., Pax Hill, Lindfield.
9. Lewis, Captain William Rowe, Hollington, Hastings.
10. *†Meek, Major George, Brantridge Park, Balcombe.
11. *†Norman, John Manship, Esq., Dencombe, Crawley.
12. †Rose- Holden, Colonel John Rose, The Ferns, Wivelsfield.
13. *†Selater, James Henry, Esq., Newick Park, Lewes, *Chairman*.
14. Sergison, Captain Warden, Cuckfield Park.

WESTERN DIVISION.

1. Aldridge, Major John, St. Leonards, Horsham.
2. Borrer, Captain Cary Hampton, Horsham.
3. De Bathe, General Sir Henry Percival, Bart., Chichester
4. †Dickins, Charles Spencer Scrase, Esq., Coolhurst, Horsham.
5. Fletcher, Sir Henry, Bart., Ham Manor, Arundel.
6. Lloyd, Colonel George Kirwan Carr, Lancing, Shoreham.
7. *Robinson, Augustin, Esq., West Lavant House, Chichester.
8. Wisden, Captain Thomas Faulconer, Broadwater, Worthing.

BRIGHTON BOROUGH.

1. Burrows, John Cordy, Esq., Brighton.
2. *Hollis, William Mellet, Esq., 7, St. George's Place, Brighton.

OFFICERS.

Medical Superintendent.—S. W. D. Williams, Esq., M.D.

Assistant Medical Officer.—Richard Greene, Esq., L.R.C.P.E.

Chaplain.—Revd. Thomas Edw. Crallan, M.A.

Apothecary.—Alfred H. Newth, Esq., M.B.

Clerk and Steward.—Mr. S. A. Mortlock.

Housekeeper.—Mrs. Stroud.

Head Attendants.—Mr. T. W. Buckle (Male Department).
Miss Buckle (Female Department).

Treasurer.—George Whitfeld, Esq., Lewes.

Clerk to the Visitors.—H. Jones, Esq., Lewes.

*Member of the House and Finance Committee.

†Member of the Farm Committee.



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SUSSEX COUNTY LUNATIC ASYLUM, HAYWARDS HEATH.

THIRTEENTH ANNUAL REPORT OF THE COMMITTEE OF VISITORS.

To Her Majesty's Justices of the Peace for the County of Sussex, assembled in Quarter Sessions, held at Lewes, in and for the Eastern Division of the said County, on Monday, the first day of January, 1872; and at Petworth, in and for the Western Division of the said County, on Thursday, the fourth day of January, 1872.

THE COMMITTEE OF VISITORS of the Sussex County Lunatic Asylum appointed at the Epiphany Sessions, 1871, are glad to be able to report very favorably of the general condition and management of the Asylum and its inmates.

Satisfactory condition of the Asylum.

The conduct of the Officers and Servants during the past year has been very satisfactory.

They have much pleasure in expressing their high estimation of the manner in which Dr. Williams continues to discharge the responsible duties of Medical Superintendent, and their entire confidence in his able management.

Confidence in Medical Superintendent.

Contract with
Hanwell Com-
mittee termina-
ted.

The contract with the Committee of Visitors of the Hanwell Asylum terminated on the 30th June last, and the Commissioners in Lunacy having declined to sanction a renewal of the contract, the 60 patients who had been maintained in this Asylum under that contract were removed to Hanwell.

Number of Pa-
tients in Asylum.

The numbers at present in the house are 263 males, and 343 females, making an aggregate of 606; all of whom, with the exception of two who have been in the Asylum since it was opened, are patients belonging to the County, or Boroughs within the County.

Room for addi-
tional Patients.

In consequence of the removal of the Hanwell patients there is now room in the Asylum for additional patients from other Counties, could such be obtained, and to this end the Committee are steadily directing their attention.

Statistical
Tables referred
to.

The Committee, as in previous years, beg to refer the Court to the accompanying Report of the Medical Superintendent, and to the Statistical Tables appended thereto.

The results of the Asylum Farm continue to be satisfactory.

(Signed)

JAS. H. SCLATER,

Chairman.

Haywards Heath, 23rd December, 1871.

SUSSEX COUNTY LUNATIC ASYLUM, HAYWARDS HEATH.
INCOME and EXPENDITURE for the Year ending December 31st, 1871.

INCOME.							EXPENDITURE.						
HEADS OF INCOME.	QUARTERS ENDING				Year ending 31st Dec.	Total.	HEADS OF EXPENDITURE.	QUARTERS ENDING				Year ending 31st Dec.	Total of General Heads of Expenditure.
	31st March.	30th June.	30th Sept.	31st Dec.				31st March.	30th June.	30th Sept.	31st Dec.		
FROM WEEKLY RATE.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	Provisions.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	From Unions Contributing to the Asylum, for Maintenance	3326 18 11	3317 7 2	3294 12 8	3277 17 0	13216 15 9		By Meat	18 8 5	12 16 0	16 16 5	24 13 3	72 14 1
	From Unions not Contributing to the Asylum, for Maintenance	1016 16 2	1042 7 0	525 3 11	530 16 2	3115 3 3		Flour	445 4 4	448 11 5	379 8 5	442 14 0	1715 18 2
	From County Treasurers, for Maintenance	89 2 6	90 3 9	97 5 4	96 15 7	373 7 2		Barley, Rice, &c.	8 2 6	6 9 0	10 1 6	6 7 2	31 0 2
	Private Patients, for Maintenance	20 11 6	20 16 0	35 17 8	29 9 9	106 14 11		Tea, Coffee, and Cocoa ..	153 2 9	104 4 11	90 12 10	87 16 6	435 17 0
Cash received from the Farm in excess of all cash advances made (from the Asylum) to the Farm	159 9 5	....	265 18 5	113 7 7	538 15 5	Sugar and Treacle ..	44 15 6	54 10 6	75 0 6	44 17 11	219 4 5		
FROM COUNTY RATE.							Sundry Groceries	26 5 2	19 15 7	20 17 5	23 0 2	89 18 4	
	Repairs and Alterations, &c., &c.	424 8 2	278 5 10	185 18 1	324 11 2	1213 3 3	Tobacco and Snuff ..	48 3 2	42 3 8	39 1 5	37 5 2	166 13 5	
	From County Treasurers, for Repairs and Alterations	424 8 2	278 5 10	185 18 1	324 11 2	1213 3 3	Butter	59 5 6	37 0 2	34 17 11	45 15 3	176 18 10	
	Improvements .....	....	123 15 0	150 4 3	....	273 19 3	Cheese, Eggs, &c.	76 14 4	89 12 1	80 11 0	94 18 0	341 15 5	
	Total from County Rate	424 8 2	402 0 10	336 2 4	324 11 2	1487 2 6	Malt, Hops and Beer ..	244 6 10	238 15 9	229 15 2	240 9 7	953 7 4	
Total Income from Weekly and County Rate	5037 6 8	4872 14 9	4555 0 4	4372 17 3	18837 19 0	Potatoes and other Vegetables	10 8 0	11 14 6	....	11 1 6	33 4 0		
			Balance	from Dec.	31st, 1870	5873 8 8	Board Wages .....	....	8 3 6	8 15 0	5 6 6	22 5 0	
					Total..£	24711 7 8	Fish	6 18 2	9 7 2	8 12 0	4 8 8	29 6 0	
							Meat (from Farm Act.) ..	921 19 2	815 16 8	804 9 9	909 0 4	3451 5 11	
							Milk, Eggs, &c. .. Do.	159 13 4	228 7 5	205 18 9	142 18 0	736 17 6	
							Vegetables	90 14 2	107 12 11	156 16 11	120 3 0	475 7 0	
							Excess of Produce Received .....	....	47 14 8	....	....	47 14 8	
							Total	2314 1 4	2282 15 11	2161 15 0	2240 15 0	8999 7 3	
							House and other Expenses.						
							By Coals, Coke, &c.	267 17 11	208 5 5	59 8 10	238 15 10	774 8 0	
							Gas	138 11 9	22 3 11	26 15 1	136 4 4	323 15 1	
							Soap	67 6 0	63 8 0	47 8 0	41 12 6	219 4 6	
							Starch, Soda, &c.	49 12 7	45 12 1	39 11 10	32 10 6	167 7 0	
							Candles	11 13 4	....	2 10 0	15 1 10	29 5 2	
							Furniture, Bedding, Linen, &c.	152 2 8	115 19 1	56 10 11	96 16 10	421 9 6	
							Ironmongery, &c.	14 8 6	32 9 6	14 8 3	3 17 6	65 3 9	
							Brooms, Brushes, &c.	15 7 0	28 2 0	5 18 0	13 5 6	62 12 6	
							Earthenware, Glass, &c.	30 19 3	7 9 6	24 10 0	29 0 7	91 19 4	
							Rates and Taxes	3 15 3	6 15 5	....	35 16 0	46 6 8	
							Stationery, Postage, &c.	20 10 10	20 3 8	17 4 6	23 18 7	81 17 7	
							Printing, Advertisements, &c.	10 8 7	47 6 11	18 11 6	23 10 6	99 17 6	
							Carriage of Goods and Conveyances	26 13 10	19 6 5	20 3 1	29 4 5	95 7 9	
							Funeral Expenses	7 13 9	13 6 11	7 7 5	9 17 10	38 5 11	
							Periodicals, Books, & Amusements	23 5 3	27 14 11	25 15 2	25 14 1	102 9 5	
							Retaking Patients ..	....	1 1 6	0 2 6	0 5 0	1 9 0	
							Patients on Trial	7 10 3	14 14 10	13 4 7	12 3 2	47 12 10	
							Uniform	34 16 7	67 5 10	29 5 6	5 0 3	136 8 2	
							Keep of Horse (from Farm Account) ..	5 17 0	5 17 0	5 17 0	5 17 0	23 8 0	
							Carting .. (Do.)	40 4 9	31 3 3	10 1 9	31 17 0	113 6 9	
							Total	928 15 1	778 6 2	424 13 11	810 9 3	2942 4 5	
							Paid to Capital for Improvements	1179 14 6	475 0 2	....	....	1654 14 8	
							By Clothing	303 9 8	250 15 11	202 12 10	183 6 11	940 5 4	
							Salaries and Wages.						
							By Officers	361 5 0	363 15 0	363 15 0	365 0 0	1453 15 0	
							Attendants and Servants	539 10 11	538 11 1	540 9 2	542 14 8	2161 5 10	
							Total	900 15 11	902 6 1	904 4 2	907 14 8	3615 0 10	
							Medicine.						
							By Drugs, Instruments, &c.	31 18 8	36 19 4	37 17 4	23 13 5	130 8 9	
							Wines, Spirits, and Porter	79 13 0	67 8 0	63 9 6	57 11 3	268 1 9	
							Essence of Beef .....	....	....	....	8 12 6	8 12 6	
							Total	111 11 8	104 7 4	101 6 10	89 17 2	407 3 0	
							By Incidentals	16 0 11	11 18 9	32 2 4	9 10 9	69 12 9	
							Removal of Patients	....	....	....	....	....	
							Total	16 0 11	11 18 9	32 2 4	9 10 9	69 12 9	
Total from Weekly Rate, &c.	4612 18 6	4470 13 11	4218 18 0	4048 6 1	17350 16 6	17350 16 6	Total from Weekly Rate	5754 9 1	4805 10 4	3826 15 1	4241 13 9	18628 8 3	
FROM COUNTY RATE.							FROM COUNTY RATE.						
Repairs and Alterations, &c., &c.							Repairs and Alterations, &c., &c.						
From County Treasurers, for Repairs and Alterations	424 8 2	278 5 10	185 18 1	324 11 2	1213 3 3		By Labour	146 13 2	124 2 5	126 7 9	121 3 9	518 7 1	
Improvements .....	....	123 15 0	150 4 3	....	273 19 3		Timber	26 13 5	16 8 10	3 16 6	27 6 6	84 5 3	
Total from County Rate	424 8 2	402 0 10	336 2 4	324 11 2	1487 2 6	1487 2 6	Iron, Lead, &c.	38 6 3	34 19 7	14 13 7	14 18 6	102 17 11	
Total Income from Weekly and County Rate	5037 6 8	4872 14 9	4555 0 4	4372 17 3	18837 19 0	18837 19 0	Bricks, Slate, Cement, &c.	20 15 8	25 8 6	23 15 9	18 2 6	88 2 5	
			Balance	from Dec.	31st, 1870	5873 8 8	Glass	4 1 3	2 18 4	0 12 6	5 2 4	12 14 5	
					Total..£	24711 7 8	Paints and Paper	54 0 8	18 16 10	2 19 6	22 9 5	98 6 5	
							Sundries	53 3 9	26 3 9	9 1 3	16 16 4	105 5 1	
							Insurance and Taxes	76 0 3	12 11 0	....	88 5 6	176 16 9	
							Carriage and Carting	4 13 9	6 16 7	4 11 3	10 6 4	26 7 11	
							Total ..	424 8 2	278 5 10	185 18 1	324 11 2	1213 3 3	
							Improvements .....	....	123 15 0	150 4 3	....	273 19 3	
Total from County Rate	424 8 2	402 0 10	336 2 4	324 11 2	1487 2 6	1487 2 6	Total from County Rate	424 8 2	402 0 10	336 2 4	324 11 2	1487 2 6	
Total Expenditure from Weekly and County Rates	6178 17 3	5207 11 2	4162 17 5	4566 4 11	20115 10 9	20115 10 9							
			Balance			4595 16 11							
					Total..£	24711 7 8							

Examined by the Finance Committee, January 17th, 1872.
(Signed)
JAMES H. SCLATER, Chairman.
JOHN MANSIP NORMAN.
P. NORTHALL LAURIE.

(Signed)
S. A. MORTLOCK,
Clerk and Steward of the Asylum.

AVERAGE WEEKLY EXPENDITURE for the Year for each Patient, from Weekly Rate.					
	QUARTERS ENDING				Average for the Year 1871.
	March 31st.	June 30th.	Sept. 30th.	Dec. 31st.	
Provisions.	s. d. 4 10½	s. d. 5 1¾	s. d. 4 8½	s. d. 5 3¾	s. d. 4 11½
House and other Expenses	2 1½	1 9½	1 0¾	1 11½	1 8¾
Clothing	0 8½	0 6¾	0 6	0 5½	0 6¾
Salaries and Wages	2 0½	2 0½	2 2¾	2 3	2 1¾
Medicine, Wine and Spirits	0 3	0 2¾	0 3	0 2¾	0 2¾
Incidentals	0 0½	0 0½	0 1	0 0½	0 0½
Nett Cost	10 0	9 9½	8 9½	10 2½	9 8
Weekly Rate charged to the Unions contributing to the Asylum.	9 3	9 3	9 3	9 3	9 3
Do. do. Not contributing do. . . .	14 0	14 0	14 0	14 0	14 0
Do. do. for Private Patients. . . .	16 0	16 0	16 0	16 0	16 0

FARM AND GARDEN ACCOUNT.

Cr.

[illegible]

ESTIMATED VALUE OF FARM STOCK:—

1870.— December 31 :—	£	s.	d.	1871.— December 31 :—	£	s.	d.
29 Cows and Fattening Beasts.....	596	0	0	31 Cows and Fattening Beasts ..	595	0	0
8 Horses	211	0	0	8 Horses.. ..	262	15	0
18 Sheep	38	0	0	42 Fat Sheep	109	4	0
106 Head of Swine	285	10	0	156 Head of Swine	289	13	0
173 Head of Poultry	23	14	0	152 Head of Poultry	19	7	0
Ferrets	0	18	0	6 Ferrets	0	15	0
	1,155	2	0		1,276	14	0
Dead Stock, Implements, &c.....	448	14	0	Dead Stock, Implements, &c.	436	15	0
Tenants' Valuation	697	11	7	Tenants' Valuation	452	9	0
Provender	361	17	0	Provender	431	15	0
	£2,663	4	7½		£2,577	13	0

(Signed) S. A. MORTLOCK, *Clerk and Steward.*

* The above Valuation made by Mr. Thos. Bannister, Haywards Heath
† do. do. Mr. Agate, Slaughtam, Crawley.

An Abstract of the Annual Returns of Pauper Lunatics chargeable to the several Unions and places in the County of Sussex, 1st Jan., 1872.

CHARGEABLE TO UNIONS AND COUNTY.	In County Asylum.		In Private Asylum.		In Asylums in other Counties.		In Work- houses.		In Lodg- ings or Boarded out.		With Friends.		TOTAL.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Battle	7	14	1	..	..	..	1	7	1	..	3	7	13	28
Brighton	65	70	..	..	..	..	39	42	..	..	20	19	124	131
Chailey	9	8	..	..	..	..	1	..	..	..	3	5	13	13
Chichester (Incorporatn)	11	7	..	..	..	..	..	1	..	..	1	3	12	11
Cuckfield	10	15	..	..	..	..	4	7	..	1	3	3	17	26
Eastbourne	6	13	..	..	..	1	1	1	..	..	..	1	7	16
East Grinstead	11	4	..	..	..	1	9	10	..	..	..	4	20	19
East Preston	8	12	..	..	..	..	1	6	..	2	6	5	15	25
Hailsham	8	12	..	..	..	..	4	6	..	..	3	7	15	25
Hastings	17	23	..	..	2	..	2	4	..	..	3	1	24	28
Horsham	7	22	..	..	..	..	3	11	..	..	8	16	18	49
Lewes	6	15	1	..	..	..	3	5	..	..	..	1	10	21
Midhurst	7	10	..	..	..	..	2	2	..	2	5	7	14	21
Newhaven	5	5	..	..	..	..	7	4	..	..	..	..	12	9
Petworth	8	7	..	..	1	..	5	4	..	..	2	1	16	12
Rye	8	10	..	..	..	..	4	7	..	..	3	6	15	23
Steyning	10	23	..	..	..	..	4	5	..	..	6	7	20	35
Thakeham	2	5	..	..	..	..	2	2	..	..	..	2	4	9
Ticehurst	9	15	..	..	..	..	8	4	1	..	2	2	20	21
Uckfield	13	13	..	..	..	..	3	3	2	..	7	10	25	26
Westbourne	4	7	..	..	..	..	3	3	..	..	1	2	8	12
Westfirle	3	2	..	..	..	..	..	..	..	..	1	1	4	3
Westhampnett	16	21	..	..	..	..	5	7	..	..	3	5	24	33
County-Eastern Division	8	6	..	..	..	..	..	..	..	..	..	..	8	6
Do. Western do.	1	..	..	..	..	..	..	..	..	..	..	..	1	..
TOTALS.....	259	339	2	..	3	2	111	141	4	5	80	115	459	602

SUMMARY.

Years.	In Asylums		In Workhouses.		With Friends.		TOTALS.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.
1st January, 1855.	92	127	79	54	45	85	216	266	482
1st January, 1868.	242	301	95	107	62	84	399	492	891
1st January, 1869.	250	318	102	110	67	84	419	512	931
1st January, 1870.	246	326	109	108	72	83	427	517	944
1st January, 1871.	275	348	116	120	79	101	470	569	1039
1st January, 1872.	264	341	111	141	84	120	459	602	1061

S. A. MORTLOCK,

Clerk of the Asylum.

THE
MEDICAL SUPERINTENDENT'S
THIRTEENTH ANNUAL REPORT.

Thirteenth Annual Report. THE Medical Superintendent has the honour to submit the Thirteenth Annual Report to the Committee of Visitors.

Numbers on the 31st Dec., 1870. On the 31st December 1870, the numbers in the Asylum were 339 Male, 352 Female. Total, 691.

Admissions. The admissions during the year have been, Male 52, Female 64. Total 116.

Discharges. The discharges during the year have been, Male 92, Female 44. Total 136.

Deaths. The deaths during the same period have been, Male 38, Female 31. Total 69.

Mean Annual Population. The mean population resident during the year has been, Male 304, Female 345. Mean Average 649.

Numbers this day 31st Dec., 1871. The numbers in the Asylum this day (31st December, 1871) are Male 261, Female 341. Total 602.

Numerical results of the year. The several numerical results are summed up in the first Table in Appendix A to this Report.

Annual per cent-ages for 1871. The Numerical Results of the year 1871 yield the following per centages :—

(a.) The Discharges (including the cases Relieved) are 75 per cent. on the admissions of the year. Excluding those cases Relieved, the per centage of Recoveries stands at Male 53.8, Female 54.7. Average 54.3.

(b.) The mean Annual Mortality is Male 12.5, Female 9. Average 10.6. Mean Annual Mortality.

The contract with the Committee of Visitors of the Middlesex County Asylum at Hanwell to maintain sixty of their patients having expired on the 30th of June last, thirty of them were removed back to Hanwell on June the 28th, and the other thirty on the 30th of the same month. The removal was effected without any *contretemps*.

This removal of the Hanwell patients will partly explain the considerable decrease in numbers since the commencement of the year. There is, however, also a decrease even in the numbers belonging to Sussex. Thus, on January 1st there were 279 males and 352 females in the Asylum chargeable to the County and Boroughs of Sussex ; whereas there are now only 261 males and 341 females, showing a decrease of 18 males and 9 females, or 27 in all. The Asylum now, therefore, has vacant accommodation for 116 males and 72 females. So that beyond certain structural improvements, it will probably be many years before the County of Sussex is called on to provide additional beds for its insane poor. Vacant Accommodation.

A reference to Table III. will show that this is the first decrease in the numbers chargeable to Sussex since the opening of the Asylum in 1859. This decrease is partly due to the small number of the admissions, and partly to the large number of those discharged recovered and relieved. Thus 63 patients have recovered, and, in addition to this, 24 harm- Discharge of Chronic & Harmless Lunatics.

less and chronic lunatics have been discharged relieved to the care of their friends ; making in all more than 75 per cent. discharged, recovered, and relieved.*

This plan of discharging chronic and harmless lunatics to the care of their friends, when such care has been solicited, and when the friends have shown themselves competent to undertake such a charge, has now been in operation for nearly two years, and has been attended with very gratifying results. Only two or three patients thus discharged have returned to the Asylum, and no complaints have been made of those at large. This success encourages a further extension of the plan, and tends to a confident belief that thus the numbers in the Asylum may be kept within reasonable limits. Surely this is a step in the right direction. How much more satisfactory it must be for the poor lunatic to be allowed the liberty of home and free intercourse with relatives, to life-long confinement, however much softened by kind treatment.

Private Patients

The vacant accommodation being so ample, the Committee of Visitors determined at the monthly meeting in May, acting on the authority given them by 16 and 17 Vict., c. 97, §. xliii., to admit Private Patients, charging them at the rate of 16s. a week, which sum includes board, lodging, washing, clothing, and medical attendance. A small number has been thus admitted, but the applications have not been so many as might have been anticipated. When, however, this boon to the lower middle classes is better known, it will probably be more extensively used and appreciated.

Improvements & Alterations.

The only structural alteration made this year has been the enlargement of the Attendants' Mess Room, and of the Scullery attached to the Males' Dining Hall,

* In these calculations, it must be remembered that no account is taken of the 60 patients discharged to Hanwell.

to the same size as those on the Females' side. This was effected by the Asylum staff of artisans. It was urgently required, and since its completion has much facilitated the efficient serving of the meals to the Male Patients.

The following wards have been papered, re-painted, white-washed, and placed in a state of thorough repair, viz.:— Males, 3, 4, and 7; and Females, 7.

In F. 3 the matting has been abolished, and carpet put down. This experiment has been so successful that it encourages an adoption of the same course in the other convalescent wards.

In F. 2, which is the ward for the Female Epileptics and Idiots, linoleum has been substituted for the matting, and this plan has also been attended with successful results. It has secured cleanliness, and freedom from bad smells in the most difficult ward in the establishment to keep clean and sweet. Moreover, a great advantage in the linoleum for this ward over the matting is that it disfigures the patients much less if perchance they fall on their faces in a fit.

The turf on the cricket ground has been taken up and entirely re-laid.

An idiot boy, only six years of age, was sent for admission from the Brighton Workhouse. It is a very difficult matter to know what to do with such cases in Asylums. They require a special attendant to be told off almost solely to guard them from harm, and they pick up all the bad habits of the adult lunatics by whom they are surrounded.

Following the precedent adopted in a former similar case, this boy has been boarded out with the wife of one of the

attendants, to whom is paid the sum received from the Brighton authorities for his maintenance. He is frequently visited by one of the Medical Officers, and by the Chief Attendant, and appears happy and properly cared for.

Escapes.

W. S., a criminal lunatic, sent here from Lewes Gaol, whose sentence had expired, and who had become so much improved in mental health that his discharge was under consideration, escaped on the 2nd of October. He had been working for some time with the painter, and being mentally much improved, was trusted to do a little out-door painting alone. He seized the opportunity and ran away. He was discharged at the end of a fortnight from the day of his escape, in conformity with the section of the Act, and has not since been heard of.

Three or four other patients have attempted to escape, but they have been in each instance retaken, or brought back in the course of a few hours.

Accidents.

The following are the only accidents of at all a serious nature that have occurred during the year:—

On January 12th S. H., a patient employed in the workshop, had a quarrel with R. L., another patient. From words they came to blows, and in the scuffle that ensued S. H. fell heavily, fracturing both bones of the right leg, in the lower third. The fracture was very oblique, and it threatened to become compound. Advantage was taken of the Rule allowing the Medical Superintendent to call in additional advice in urgent cases, and F. W. Jowers, Esq., F.R.C.S., Surgeon to the Brighton Hospital, saw the patient. Recovery was complete and satisfactory.

On August 8th R. W., a chronic lunatic, with auditory

delusions, who has, almost since the opening of the Asylum, worked in the cow-house, and was considered quite harmless, made a homicidal attack on Boniface, the cowman, with a broom handle. The attack was so sudden and unexpected that Boniface had no time to defend himself. He was stunned by the first blow, and would, without doubt, have been killed had not timely help arrived. As it was he had seven large and severe scalp wounds, and was laid up for a month. It need scarcely be added that R. W. will be carefully confined for the future.

On 25th September C. L., a female æt. 72, bed-ridden, and gradually dying, slipped up in trying to reach the night-stool from her bed. She sustained a fracture of the neck of the thigh bone.

Small-pox being epidemic in London, and isolated cases having occurred in this neighbourhood, it was considered advisable to vaccinate all the Staff and all the patients still in the house, who had been admitted since 1865, that being the year small-pox was prevalent in the Asylum, and when the whole population, patients and staff, were vaccinated. Small Pox Epidemic.

The sanitary condition of the establishment throughout the year has been good. There has been an entire freedom from any illness of an epidemic character, and the healths of the members of the staff and of the patients not suffering from organic disease, have been satisfactory. In the early parts of the year the deaths were few in number, but since the setting in of the cold weather, many old and paralytic cases have been taken off. There has been no death from other than natural causes, and there has been no inquest during the year. Sanitary Condition.
Deaths.

The anniversary of the opening of the Asylum on the 25th July, 1859, was celebrated this year as heretofore, and was Amusements.
Commemoration

attended with even more than the usual success. The attendance of the Visiting Justices, and of ladies and gentlemen from the neighbourhood, was very large, and the countenance thus given to our proceedings was much appreciated.

The anniversary sermon was preached by the Rev. A. P. Perfect, Rector of St. John's, Lewes.

The amusements generally have been quite as numerous, and of much the same character as last year. Several entertainments have been got up by members of the staff, and the Medical Superintendent's thanks are due to many of the officers, attendants, and nurses, for the cordial manner in which they have done their best to forward these entertainments.

Whenever opportunity has offered, strolling players, lecturers, &c., have been engaged ; and on December 13th Miss Sarah Thorne and her Corps Dramatique gave a theatrical performance, consisting of a comedy and pantomime. The corps numbered fifteen performers. The patients were delighted with the entertainment, and it certainly was the best given this year.

Donations.

The Chairman of the Committee of Visitors has presented the male patients with a full-sized billiard table in excellent condition. It has been placed in the new Club-room for the artisan patients, and is much appreciated by them, every spare moment between work hours—even before breakfast—being eagerly seized on for playing.

Another member of the Committee (Major Meek) kindly made the patients a present of four fine parrots for the female wards.

Visit of Commissioners in Lunacy.

Two of the Visiting Commissioners in Lunacy inspected the Asylum, and saw each patient on the 21st and 22nd of March. They made a full and very satisfactory report, which will be found at page 22.

Deputations from the Boards of Guardians of most of the Unions, and from the magistrates of the contributing boroughs, in many cases accompanied by their medical officers, have visited the patients at irregular intervals during the year. In every instance a satisfactory report has been left.

Visits of Union
Authorities.

A new feature in this report is the introduction (see Appendix B) of notes, prepared by the Medical Officers, of some of the most novel and successful modes of treatment that have been adopted in this Asylum during the year. The idea was only conceived late in the year, so that the results are somewhat crude ; but another year, it is hoped, work of greater value will be produced. At all events, the Medical Officers trust this effort will be taken as an earnest of their desire to help in the advancement of psychological medicine. The Chaplain has, with much care and labour, contributed a paper, which will be found at the end of the Appendix, on the effects of Meteorological Facts on Insanity, which it is confidently believed will be found of great interest.

The efficient manner in which the officers, without exception, have worked for the common weal of the establishment, requires the warmest acknowledgments from the Medical Superintendent, and enables him to point to the very satisfactory history of the year in proof that the standard of excellence of this Asylum has been fully maintained.

Conclusion.

In concluding his second annual report, the Medical Superintendent again ventures to thank the Committee of Visitors for the support they have rendered him during the year, and to express a hope that he still retains their confidence.

(Signed) S. W. D. WILLIAMS, M.D.,
Medical Superintendent.

Haywards Heath, 31st December, 1871.

THE CHAPLAIN'S THIRTEENTH ANNUAL REPORT.

Thirteenth Annual Report. THE Chaplain desires to place before the Committee of Visitors his Report for the thirteenth year since the opening of the Asylum.

Sunday Services. The Sunday services in the Chapel and in the Wards have been continued during this year as usual. The Chaplain has much pleasure in adding that the demeanour of the patients during service is remarkable for its orderly and reverential character.

Administration of Holy Communion. Holy Communion has been administered on the customary Sundays in the Chapel, and on certain occasions in the Female Infirmary.

Daily Prayers. The Morning Prayers in the dining halls have been continued, and the behaviour of the patients has been uniformly quiet and reverent.

Classes. The Classes have gone on as formerly. The number of male patients attending the Bible Class has considerably increased, and the men seem to feel it a benefit to them.

Library. The Library is managed as before, and is evidently a means of mental relaxation to the large number of the household who continually resort to it.

The Chaplain has visited the wards, infirmaries, shops, &c., <sup>Visits to Wards,
Shops, &c.</sup> on the prescribed occasions, and at other times when it seemed desirable for him to do so.

The Commemoration was observed on July 25th. The Commemoration sermon was preached by the Rev. A. P. Perfect, M.A., Rector of St. John's sub Castro, Lewes; the lessons were read by the Rev. H. J. Rush, Vicar of Rustington, and the Rev. J. Milner, Vicar of Lindfield.

The choir was led by Mr. White, of Cuckfield, as usual.

54 burials and 15 removals have taken place during the Burials. year.

The Chaplain desires to thank all the members of the Conclusion. staff for the support he has received in the execution of his duties.

(Signed) THOMAS E. CRALLAN, M.A.,
Chaplain.

Haywards Heath, Dec. 31st, 1871.

METEOROLOGICAL REPORT.

THE year 1871 has been on the whole a dry one. The months of April, June, July, and September, were marked by rainfall considerably over the average. The remaining eight months were all dryer than usual.

May was a cold, dull month, but unusually dry. The rains which followed had a most beneficial effect on the grass and root crops.

The greatest rainfall took place in the month of September, when it amounted altogether to 4.13 inches. The rains during this month were heavy, as this large amount fell on 12 days only.

The greatest rainfall on any one day, amounting to .85 inches, fell on September 23rd.

The mean temperature of the year was below the average. There was no very great cold at any period, nor any great heat.

The winter set in with moderate severity, if I may use such an expression, on November 30th, but after fourteen days passed off, and the latter portion of December was mild and open.

The mean daily temperature during the first thirteen days of December was 32.8; during the rest of the month it was 42.1.

The usual table is annexed.

THOMAS E. CRALLAN.

Meteorological Observations taken at the County Lunatic Asylum during 1871.

Year 1871.	Pressure of atmosphere corrected and reduced.		Temperature of the Air.										Radiation Thermometer.				Wind.							Rain.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	9 a.m.	Mean. Range.	Maximum.		Minimum.		Range.		Fall		Maxima.		Fall		Minima.		Daily Range.		Daily Temperature.		Dew point.		Humidity Satn. 100.		Maximum in Sun.		Minimum on Grass.		Range.		Mean Maximum.		Mean Minimum.		Mean Velocity in miles per diem.		Direction.							No. of days it fell.	Amount Collected.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

(Signed) THOMAS E. CRALLAN, M.A.,
Chaplain.

REPORT BY THE VISITING COMMISSIONERS IN LUNACY.

SUSSEX COUNTY ASYLUM,

March 22nd, 1871.

THIS Asylum now contains 684 patients, of whom 335 are men and 349 are women. Only 573 of these are paupers belonging to the County of Sussex, the remaining number being made up by 2 male private patients, 60 men received under a contract from the Hanwell Asylum, 1 woman from the County of Surrey, and 23 men and 25 women from the non-contributing boroughs of Hastings, Chichester, and Seaford.

The private patients pay 16s., and the out county patients 14s. a week.

Since our colleagues' visit in June, 1870, 56 men and 54 women have been admitted; 31 men and 33 women have been discharged; and 27 men and 18 women have died. Inquests were held in two cases. In one of them it was found that death had been caused by the patient having eaten poisonous berries; in the other, a case of general paralysis, although the sixth rib was found to be fractured, "no blame, neglect, or improper treatment," was attributed to any of the Officers of the Asylum. Symptoms of the fracture were observed before death, and hence the holding of the inquest. It should be stated that the bones of this patient, when subjected to an examination by Dr. Ormerod, of the Sussex

County Hospital, were found to be diseased and extremely brittle.

The deaths in all the other cases were from ordinary causes, and the percentage upon the population was low, although the Asylum generally contains a somewhat large proportion of feeble and paralysed cases. We thought the infirmary arrangements very good, and the sick evidently receive the utmost attention. For specific bodily disorders, 6 males and 8 females are under medical treatment; but medicine is given to as many as 56 men and 78 women, for their mental malady; and 70 men and 63 women are receiving extra diet. We find record of 23 instances of seclusion in the male, and 41 in the female division, applicable to 7 men and 15 women. There is no report of any case of mechanical restraint. Packing in the wet sheet is employed medically in cases of acute mania, and is always registered in the Case Book.

We found one man, a recent admission, secluded in the padded room, but during the two days we were in the wards there was no other instance, and indeed, throughout both divisions the utmost quiet and good order prevailed, and the personal condition of the patients was very satisfactory. We saw the dinners in both divisions. The men had pudding and the women beef and vegetables. The food seemed to be well cooked, and the allowance to each patient sufficient. There were about 70 of the men busily employed on the land, and 57 at work in the shops, the total number of men employed being 179; whilst of the women 52 are employed in the wash-house, 27 in the kitchen, vegetable room, and dining hall, and altogether 256 are reported to find some useful occupation.

There are four services in Chapel on Sunday, and this,

notwithstanding its limited size, about 180 men and 240 women, are able to attend.

At the week day prayers, which are held in the wards, the numbers are larger.

The weekly balls are continued, and the patients are frequently assembled together for concerts, theatrical performances, conjurors, magic lantern, &c. During the last summer several parties of about 10 patients at a time, were sent to the Crystal Palace, and there were frequent pic-nics, &c.

We have a most favourable report to make of the state of the wards, which were not only clean and well ventilated, but most cheerful and comfortable, and furnished throughout with all needful appliances, and means of amusement and occupation.

The whole of the women's side has been painted and papered, and a similar improvement is in progress in the men's wards; and it should be noticed that all this work is being done by patients and their attendants, and consequently at a very small cost; and it should also be noted that all the furniture in the new wing was made in the workshops.

There have been several other important additions and improvements since the last visit. The new four-storey wing on the women's side, which contains 13 single rooms on each floor, has been completed, and is now occupied. The ironing room at the laundry has been doubled in size, and a larger ward, for 50 patients, built above it. The stores have been raised a storey, and otherwise enlarged. The entrance gates have been removed further from the Chapel, and the approach has been greatly improved. The Chairman has recently given an excellent billiard table, which has been

placed in the large day room over the shops, and is evidently much enjoyed.

We have made enquiry as to the staff of attendants and nurses. The changes among them have not been numerous, and no one has been discharged for misconduct.

The airing courts and the garden and land continue to be kept in the best order, and we are informed that the profits on farm and garden produce amounted last year to £1,250.

We have signed and examined the books, and have to speak with much approval of the careful manner in which the Case Books are kept.

We have been much pleased with the condition of the Asylum and its inmates, which continues to reflect great credit on the management of Dr. Williams, who is now assisted by Dr. Greene, in the place of Dr. Nicol.

(Signed)

W. G. CAMPBELL, } Commissioners
ROBERT NAIRNE, } in Lunacy.



APPENDICES

TO THE

MEDICAL SUPERINTENDENT'S

THIRTEENTH ANNUAL REPORT.

APPENDIX A.

CONTAINING THE

TABLES OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, &c.

The Medical Superintendent desires to acknowledge the services rendered to him by the Clerk and Steward of the Asylum (Mr. S. A. Mortlock) in the compilation of these Tables.

TABLE 1.

Showing the Admissions, Re-Admissions, Discharges, and Deaths during the Year 1871.

				Male.	Female.	Total.
In the Asylum, 1st January, 1871 ...				339	352	691
	M.	F.	T.			
Admitted for the first time during the year	42	52	94			
Re-Admitted during the year	10	12	22			
Total Admitted.....				52	64	116
Total under care during the year				391	416	807
Discharged or Removed :						
	M.	F.	T.			
Recovered.....	28	35	63			
Relieved	16	8	24			
Not Improved	48	1	49			
Died	38	31	69			
Total Discharged and Died during the year				130	75	205
Remaining in the Asylum, Dec. 31st, 1871 (inclusive of absent on trial), 2 Males				261	341	602
Average numbers resident during the year				304.7	344.9	649.6

CONTENTS OF APPENDIX A.

No.	PAGE,
I. The Admissions, Discharges, and Deaths	31
II. The Admissions, Discharges, and Deaths since the Opening of the Asylum, 25th July, 1859	32
III. Showing the Admissions, Discharges, and Deaths, with the mean annual Mortality and proportion of Recoveries of each year since the Opening of the Asylum	33
IV. Showing the History of the Annual Admissions since the Opening of the Asylum, and the num- ber of each year remaining on the 31st December, 1871	34
V. Showing the Causes of Death during the year ...	35
VI. Showing the length of Residence in those Dis- charged, Recovered, and Died during the year	36
VII. Showing the Duration of the Disorder on Admis- sion in the Admissions, Discharges and Deaths during the year	37
VIII. Showing the Ages of the Admissions, Discharges, and Deaths during the year	38
IX. Condition as to Marriage in the Admissions, Dis- charges, and Deaths during the year	39
X. Showing the probable Causes, Apparent or As- signed, of the Disorders in the Admissions, Dis- charges, and Deaths during the year	40
XI. Patients' daily State and Employment	41
XII. The Establishment	42
XIII. Provisions Consumed	43
XIV. The Diet Table	44-45

TABLE II.

Showing the Admissions, Re-Admissions, and Discharges, from the Opening of the Asylum to the present date, 31st December, 1871.

	Male.	Female.	Total.
Admitted during the Period of $12\frac{1}{2}$ years	976	935	1911
Re-Admissions	53	87	140
Total of Cases Admitted	1029	1022	2051
Discharged or Removed :			
	M.	F.	T.
Recovered.....	202	284	486
Relieved	70	60	130
Not Improved	114	40	154
Died	382	297	679
Total Discharged and Died during the $12\frac{1}{2}$ years	768	681	1449
Remaining, December 31, 1871	261	341	602
Average numbers resident during the $12\frac{1}{2}$ years	242	275	517

TABLE III.

Showing the Admissions, Discharges, and Deaths, with the Mean Annual Mortality and proportion of Recoveries per cent. of the Admissions for each Year since the Opening of the Asylum.

YEAR.	Admitted.			Discharged.						Died.			Remaining 31st Dec. in each year.			Average No. Resident.			Per centage of Recoveries on Admissions.			Per centage of Deaths on average Nos. Resident				
				Recovered.		Relieved.		Not Improved																		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.					
1859.....	143	164	307	2	4	6	„	„	1	1	2	4	6	10	135	150	285	108	124	232	1.4	2.4	1.9	3.7	4.8	4.3
1860.....	80	104	184	12	18	30	3	3	4	1	5	25	9	34	172	227	399	133	161	294	15.0	17.3	16.3	18.8	5.5	11.5
1861.....	103	66	169	7	22	29	3	1	4	10	28	26	19	45	228	231	459	192	227	419	6.8	33.3	17.1	13.5	8.3	10.7
1862.....	60	69	129	14	16	30	1	6	7	7	10	23	18	41	242	258	500	232	249	481	23.3	23.1	23.2	9.9	7.2	8.5
1863.....	59	22	81	13	19	32	9	2	11	33	34	28	15	43	220	243	463	235	256	491	22.0	86.3	39.5	11.9	5.8	8.7
1864.....	64	70	134	14	10	24	5	2	7	4	8	36	21	57	225	276	501	223	250	473	21.8	14.2	17.9	16.1	8.4	12.0
1865.....	67	57	124	16	17	33	6	6	12	1	5	36	29	65	233	277	510	227	281	508	23.8	29.8	26.6	15.8	10.3	12.7
1866.....	70	89	159	17	25	42	5	8	13	1	1	40	30	70	240	303	543	239	296	535	24.2	28.2	26.4	16.7	10.1	13.0
1867.....	69	93	162	15	27	42	6	13	19	1	5	35	37	72	252	315	567	244	312	556	21.7	29.0	25.9	14.3	11.8	12.9
1868.....	119	73	192	14	34	48	5	5	10	2	2	28	24	52	322	325	647	290	326	616	11.7	46.6	25.0	9.6	7.3	8.4
1869.....	60	68	128	21	25	46	6	4	10	2	5	35	29	64	318	332	650	320	333	653	35.0	36.7	36.0	10.9	8.7	9.8
1870.....	83	83	166	29	32	61	5	2	7	„	„	28	29	57	339	352	691	332	344	676	34.9	38.5	36.7	8.4	8.5	8.4
1871.....	52	64	116	28	35	63	16	8	24	43	49	38	31	69	261	341	602	304	345	649	53.8	54.7	54.3	12.5	9.0	10.6
TOTAL.....	1029	1022	2051	202	284	486	70	60	130	114	154	382	297	679				242	275	517	„	„	„	„	„	„

TABLE IV.

Showing the History of the Annual Admissions since the Opening of the Asylum, with the Discharges and Deaths, and the Numbers of each year remaining on the 31st December, 1871.

Admitted.				Of each year's Admissions Discharged and Died in 1871.				Total Discharged and Died of each Year's Admissions to 31st Dec., 1870.				Remaining of each year's Admissions Dec. 31, 1871.				YEAR.												
YEAR.	New Cases.		Relapsed Cases.	Re-covered.		Relieved.		Not Im-proved.		Died.		Re-covered.		Relieved.		Not Im-proved.		Died.		M.	F.	Tot.						
	M.	F.		M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.										
1859...	143	164	"	"	"	"	"	"	"	"	"	7	6	13	1	16	27	1	4	5	66	67	133	53	69	122	1859	
1860...	79	104	"	"	"	"	"	"	"	"	"	2	2	4	16	30	46	10	7	14	30	28	58	15	21	36	1860	
1861...	102	60	"	"	"	"	"	"	"	"	"	"	"	"	9	19	28	40	4	10	32	20	52	11	18	29	1861	
1862...	58	64	"	"	"	"	"	"	"	"	"	2	2	"	16	27	43	1	4	7	27	21	48	10	16	26	1862	
1863...	58	22	"	"	"	"	"	"	"	"	"	1	1	2	11	5	16	2	3	7	32	8	40	11	3	14	1863	
1864...	56	62	"	"	"	"	"	"	"	"	"	2	2	2	16	19	35	4	3	7	29	19	48	12	23	35	1864	
1865...	62	50	"	"	"	"	"	"	"	"	"	1	1	2	11	16	27	4	6	10	33	16	49	16	16	32	1865	
1866...	64	84	"	"	"	"	"	"	"	"	"	1	1	2	14	25	39	"	5	14	31	26	57	18	23	41	1866	
1867...	63	80	"	"	"	"	"	"	"	"	"	3	4	5	20	29	49	1	4	5	21	23	44	18	23	41	1867	
1868...	116	61	"	"	"	"	"	"	"	"	"	4	4	4	18	30	48	9	8	15	17	16	33	19	18	37	1868	
1869...	57	61	"	"	"	"	"	"	"	"	"	2	3	6	17	16	33	4	2	3	12	15	27	19	26	45	1869	
1870...	76	71	"	"	"	"	"	"	"	"	"	4	4	15	15	17	32	1	1	1	14	7	21	28	39	67	1870	
1871...	42	52	"	"	"	"	"	"	"	"	"	27	3	10	11	12	23	"	"	"	"	"	"	"	31	46	77	1871
TOTAL	976	935	53	2051	28	35	63	16	48	1	38	31	69	174	249	423	54	52	106	66	39	105	344	266	610	341	602	TOTAL

Summary of the Total Admissions, 1859-71.				Both Sexes.	
				Male.	Female.
Per centage of Cases Recovered				19.6	27.9
" Relieved				6.8	5.9
" Not Improved				11.1	3.9
" Dead				37.1	29.0
" Remaining				25.4	33.3
				100.	100.

TABLE V.

Showing the Causes of Death during the Year.

CAUSES OF DEATH.	Male.	Female.	TOTAL.
<i>Cerebral or Spinal Diseases.</i>			
Inflammation and other Diseases of the Brain, Softening, &c. ...	9	3	12
Epilepsy	3	3	6
General Paralysis of the Insane ...	4	4	8
Maniacal or Melancholic Exhaustion or Decay	5	2	7
<i>Thoracic Diseases.</i>			
Inflammation of Lungs, Pleuræ or Bronchi	1	1	2
Pulmonary Consumption	4	4	8
Disease of the Heart	2	4	6
Asthma	1	0	1
<i>Abdominal Diseases.</i>			
Dilatation of Stomach	0	1	1
Peritonitis.....	1	1	2
Inflammation of Intestines	1	0	1
Intussusception.....	1	0	1
Morbus Addisonii.....	1	0	1
Leucocythæmia.....	0	1	1
Decay of Idiocy.....	0	1	1
Decay of Old Age	6	3	9
Cancer	0	2	2
TOTAL.....	39	30	69

TABLE VI.

*Showing the length of Residence of those Discharged Recovered,
and in those who have Died during the year 1871.*

Length of Residence.	RECOVERED.			DIED.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month	„	„	„	2	„	2
From 1 to 3 months	5	3	8	2	2	4
„ 3 „ 6 „	4	12	16	4	„	4
„ 6 „ 9 „	5	10	15	4	2	6
„ 9 „ 12 „	6	3	9	3	2	5
„ 1 „ 2 years	5	3	8	7	2	9
„ 2 „ 3 „	1	2	3	„	1	1
„ 3 „ 5 „	„	1	1	1	11	12
„ 5 „ 7 „	1	1	2	3	2	5
„ 7 „ 10 „	„	„	„	3	1	4
„ 10 „ 13 „	1	„	1	9	8	17
TOTAL	28	35	63	38	31	69

TABLE VII.

Showing the Duration of the Disorder on Admissions, Discharges, and Deaths during the Year 1871.

Duration of Disease on Admission in Four Classes.												
CLASS.	The Admissions.			Recovered.			The Discharges.			The Deaths.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
FIRST CLASS— First attack, and within three months on admission.....	19	21	40	13	16	29	10	...	10	14	11	25
SECOND CLASS— First attack, above three and within twelve months on admission.....	5	9	14	3	3	6	7	...	7	8	3	11
THIRD CLASS— Not first attack, and within twelve months on admission.....	13	25	38	11	12	23	10	8	18	5	7	12
FOURTH CLASS— First attack or not, but of more than twelve months on admission	8	7	15	...	3	3	11	...	11	7	9	16
Not ascertained	7	2	9	1	1	2	26	1	27	4	1	5
TOTAL.....	52	64	116	28	35	63	64	9	73	38	31	69

TABLE VIII.

Showing the Ages of the Admissions, Discharges, and Deaths during the Year 1871.

Ages.	The Admissions.			The Discharges.			The Deaths.		
	The Admissions.			Recovered.		Removed, Relieved, or otherwise.	The Deaths.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
From 5 to 10 years.....	1	...	1	...	...	...	...	...	...
" 10 15	...	...	...	...	...	...	...	...	...
" 15 20	...	3	3	5	2	7	1	2	3
" 20 30	10	7	17	13	9	22	2	3	5
" 30 40	11	16	27	13	7	20	13	2	15
" 40 50	10	12	22	11	5	16	16	3	19
" 50 60	10	15	25	9	7	16	14	2	16
" 60 70	4	5	9	7	3	10	5	1	6
" 70 80	2	5	7	4	1	5	2	...	2
" 80 90	...	1	1	...	...	...	...	...	...
" 90 and upwards.....	...	...	...	...	...	...	...	...	...
" Not ascertained	4	..	4	1	1	2	12	1	13
TOTAL.....	52	64	116	63	35	98	64	31	95

TABLE IX.

Condition as to Marriage in the Admissions, Discharges, and Deaths during the Year 1871.

Condition in Reference to Marriage.	The Admissions.			The Discharges.				The Deaths.		
	Male.	Female.	Total.	Recovered.		Removed, Relieved, or otherwise.		Male.	Female.	Total.
				Male.	Female.	Total.	Male.	Female.	Total.	
Single.....	15	30	45	9	16	25	36	5	12	26
Married	30	20	50	14	15	29	8	3	9	25
Widowed	4	14	18	5	3	8	4	1	8	14
Not ascertained	3	0	3	0	1	1	16	0	2	4
TOTAL.....	52	64	116	28	35	63	64	9	31	69

TABLE X.

Showing the probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges, and Deaths of the year.

CAUSES.	The Admissions.			The Discharges.						The Deaths.		
				Recovered.			Removed, Re- lieved, or otherwise.					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
MORAL.												
Religion	1	4	5	1	1	2	2	..	2	..	2	2
Family Trouble	6	4	10	3	5	8	1	1	2	5	..	5
Love	..	3	3	..	1	1	..	..	..	..	..	..
Poverty.....	..	..	..	..	..	..	..	..	..	..	..	..
Despondency	..	1	1	..	..	..	..	..	..	..	1	1
PHYSICAL.												
Intemperance	3	3	6	1	2	3	..	..	..	5	..	5
Weakness.....	..	2	2	..	..	..	..	..	..	3	1	4
Fever.....	1	..	1	1	..	1	1	..	1	..	..	..
Disease of the Brain	1	1	2	..	..	..	..	..	..	2	..	2
Injury to Head	4	..	4	1	..	1	1	..	1	..	..	..
Puerperal State	..	2	2	..	2	2	..	..	..	..	1	1
Epilepsy	..	..	..	..	..	..	..	..	..	2	2	4
Hereditary Tendency	2	..	2	1	..	1	..	..	..	1	1	2
Injury to Spine	..	..	..	..	..	..	..	..	..	..	..	..
Tape Worm	..	..	..	..	..	..	..	..	..	..	..	..
Sunstroke.....	3	1	4	..	1	1	..	..	..	..	..	..
Paralysis	..	..	..	..	..	..	..	..	..	1	..	1
Hysteria	..	..	..	..	..	..	..	..	..	..	..	..
Hydrocephalus	..	..	..	..	..	..	..	..	..	..	..	..
Not ascertained	31	43	74	20	23	43	59	8	67	19	23	42
TOTALS	52	64	116	28	35	63	64	9	73	38	31	69

TABLE XI.

Patients' Daily State and Employment. Average.

(Compiled from the Daily State Book, which is made up from the Ward Returns.)

OCCUPATION OR TRADE.		Daily Average No. of Patients.
Male Patients.		
Working Party.	With the Gardener and out-door Attendants...	54
	With the Farm Attendants.....	14
	With the Cowman.....	3
With the	Carpenter	3
„	Bricklayer.....	3
„	Upholsterer	3
„	Basketmaker	2
„	Tailor.....	10
„	Shoemaker	11
„	Matmaker.....	12
„	Painter	8
„	Engineer	1
„	Baker.....	3
„	House Attendant	4
„	Bath „	2
In the	Dining Hall	7
„	Steward's Stores, Brewhouse, &c.....	7
„	Wards (cleaning)	42
Daily Average number Employed		186
Female Patients.		
In	Laundry and Wash-house	50
„	Kitchen	8
„	Dining Hall	14
„	Wards, &c. (Cleaning)	40
„	„ (Needlework)	117
„	Vegetable Room	10
Daily Average Number Employed		239

ATTENDANCE AT—	DAILY ATTENDANCE.			
	M.	F.	TOTAL.	
„ Sunday Chapel	200	230	430	
„ Weekday „	190	280	470	
„ School	20	25	45	
„ Weekly Ball	100	100	200	
„ Other Entertainments ..	120	125	245	
Walk about Grounds	168	190	358	
„ beyond „	90	100	190	
„ on Terraces	200	250	450	
NIGHT REPORT.				
Number of Wet Cases.....	6	4	10	
„ Dirty „	1	1	2	
„ Noisy (at Night).....	4	4	8	
Average number Resident } (mean Annual Population) }		304	345	649

TABLE XII.
THE ESTABLISHMENT.
OFFICERS.

Medical Superintendent	£500	}	Furnished Apartments, Coals, Vegetables, and Laundry.
Chaplain	200		
Clerk to Visitors.....	120	}	None.
Apothecary	120		
Asst. Med. Officer	150	}	Lodging, Board, Washing, and Attendance.
Clerk and Steward.....	150		
Housekeeper	60		
Head Attendant (Female Depart- ment)	70		
Ditto (Male ditto)	90		House, Coals, and Gas.

ATTENDANTS AND SERVANTS.

1 Clerk and Steward's Clerk	£30	0	0	Board, Lodging, and Washing.
1 Male Attendant (Night)	63	0	0	} None.
1 Ditto Ditto ...	54	0	0	

Board, Lodging, and Washing:—

1 Male Attendant (Dining Hall)	40	0	0	1 Head Laundry Maid ...	21	0	0
5 Ditto	35	0	0	2 Laundry Maids	18	0	0
1 Ditto	34	0	0	1 Ditto	15	0	0
1 Ditto	33	0	0	2 House Porter & Wife...	52	0	0
1 Ditto	32	0	0	1 Cook	22	0	0
3 Ditto	31	0	0	1 Dairy Maid	16	0	0
1 Ditto	30	0	0	1 Kitchen Maid	13	0	0
1 Ditto	27	0	0	1 Housemaid	14	0	0
4 Ditto	26	0	0	1 Ditto	13	0	0
1 Ditto	25	0	0	1 Farm Attendant	29	0	0
1 Ditto	24	0	0	1 Ditto	25	0	0
1 Female Attendant (Night)	21	0	0	1 Store and House Porter	28	0	0
1 Ditto	20	0	0				
1 Ditto (Dining Hall)	23	0	0				
2 Ditto	25	0	0				
1 Ditto	22	0	0				
3 Ditto	21	0	0				
1 Ditto	20	0	0				
7 Ditto	18	0	0				
3 Ditto	17	0	0				
1 Ditto	16	0	0				
2 Ditto	15	0	0				
1 Ditto	12	0	0				
1 Ditto (Workroom)	22	0	0				

*House, Coals, Vegetables, and
Gas:—*

						per Week.
1 Engineer	1	15	0			
1 Bailiff	1	5	0			
1 Gardener	1	2	0			

	per Week.				per Week.		
Tailor.....	1	3	0	Bricklayer's Labourer ...	0	15	0
Shoemaker	1	3	0	Painter and Glazier	1	10	0
Ditto	1	3	0	Blacksmith	1	5	0
Mat Maker	1	3	0	Stoker	1	0	0
Basket Maker	1	3	0	Ditto	0	18	0
Upholsterer	1	10	0	Cowman	0	17	0
Baker	1	5	0	Cow Boy	0	9	0
Brewer	1	5	0	Carter	0	17	0
Butcher.....	1	0	0	Carter's Boy	0	3	0
Under Garden Attendant	1	0	0	Stockman	0	15	0
Carpenter	1	10	0	Assistant Carter.....	0	16	0
Bricklayer.....	1	10	0				

TABLE XIV.
DIET SCALE.

BREAKFAST, At 8.0 A.M.										DINNER At 1.0. P.M.										SUPPER, At 6.0 P.M.									
Males.					Females.					Males.					Females.					Males.					Females.				
Bread.	Cocoa.	Bread.	Cocoa.		Bread.	Beer.	Uncooked Meat.	Meat Pudding.	Suet Pudding	Mutton Broth or Irish Stew.	Plum Dumpling.	Vegetables.	Bread.	Beer.	Uncooked Meat	Meat Pudding.	Plum Pudding.	Mutton Broth.	Meat Stew.	Vegetables.	Bread.	Butter.	SweetCake or	Bread.	Butter.	SweetCake or	Tea.		
oz.	pt.	oz.	pt.		oz.	pt.	oz.	oz.	oz.	pt.	oz.	oz.	oz.	pt.	oz.	oz.	oz.	oz.	pt.	pt.	oz.	oz.	pt.	oz.	oz.	pt.	pt.		
6 9	1 1	5 5	1 1		4 4	$\frac{1}{2}$ $\frac{1}{2}$	6 9	..	12	..	..	16 9	..	..	8 8	..	..	..	..	..	12 12	6 9	$\frac{1}{2}$ $\frac{1}{2}$	5 5	$\frac{1}{2}$ $\frac{1}{2}$	1 1			
6	1	5	1		4 4	$\frac{1}{2}$ $\frac{1}{2}$	4 4	12	..	1	..	8	..	..	4 4	8	..	..	1	..	12 12	6 6	$\frac{1}{2}$ $\frac{1}{2}$	5 5	$\frac{1}{2}$ $\frac{1}{2}$	1 1			
6	1	5	1		4 4	$\frac{1}{2}$ $\frac{1}{2}$	4 4	..	..	..	16	..	..	$\frac{1}{2}$ $\frac{1}{2}$	4 4	..	..	..	1	12 12	6 6	$\frac{1}{2}$ $\frac{1}{2}$	5 5	$\frac{1}{2}$ $\frac{1}{2}$	1 1				
6	1	5	1		4 4	$\frac{1}{2}$ $\frac{1}{2}$	8	..	..	..	..	16	..	$\frac{1}{2}$ $\frac{1}{2}$	..	..	12	..	..	..	6 6	$\frac{1}{2}$ $\frac{1}{2}$	5 5	$\frac{1}{2}$ $\frac{1}{2}$	1 1				
6	1	5	1		4 4	$\frac{1}{2}$ $\frac{1}{2}$	4 4	12	..	..	..	12	..	$\frac{1}{2}$ $\frac{1}{2}$	4 4	..	..	1	..	8	6 6	$\frac{1}{2}$ $\frac{1}{2}$	5 5	$\frac{1}{2}$ $\frac{1}{2}$	1 1				
6	1	5	1		4 4	$\frac{1}{2}$ $\frac{1}{2}$	4 4	..	..	1	..	8	..	$\frac{1}{2}$ $\frac{1}{2}$	4 4	8	..	..	..	12	6 6	$\frac{1}{2}$ $\frac{1}{2}$	5 5	$\frac{1}{2}$ $\frac{1}{2}$	1 1				
Weekly Total...	7	35	7		28	$3\frac{1}{2}$	30	24	12	2	16	72	12	$3\frac{1}{2}$	28	16	12	1	1	68	42	$3\frac{1}{2}$	35	$3\frac{1}{2}$	7				

TABLE XIV. *Continued.*

DINNER.

	Male Patients.	Female Patients.	Thursday	Male Patients.	Female Patients.
Sunday	Bacon and Suet Pudding, with Rice and Fruit in season.	Roast Meat, with Rice and Fruit in season.		Roast Meat or Pickled Pork.	Plum Pudding and Treacle Sauce.
Monday	Mutton Broth or Bread and Cheese, (3oz).	Meat Pudding.	Friday	Meat Pudding.	Mutton Broth or Irish Stew.
Tuesday	Meat Pudding.	Meat Stew.	Saturday	Irish Stew.	Meat Pudding or Bacon 4oz., with Suet Pudding 8oz.
Wednesday	Plum Dumpling and Treacle Sauce.	Meat Stew.			

Bread, Beer, and Vegetables daily.
When Rice and Fruit Pudding is given on Sunday, 4 oz. less Suet Pudding to Males, and 1 oz. less Meat to Females.

Extra Diet for Sick.—Mince Meat, Steak, Mutton Chop, Fowl, Fish, Eggs, Mutton Broth, Beef Tea, Essence of Beef, Milk, Arrow Root, Rice Pudding, Batter Pudding, Sago, Barley Water, Gruel, Oranges, Biscuits, Calf's Foot Jelly, Porter, Bitter Ale, Port Wine, Sherry, Brandy, Gin, Whisky, Rum, Lemonade, Soda Water.

Extra Diet for Working Patients.— $\frac{1}{2}$ Pint Beer, 2 oz. Bread, 1 oz. Cheese, at 11 A.M., and $\frac{1}{2}$ Pint Beer at 4 P.M., the Laundry Patients $\frac{1}{2}$ Pint Tea. Tobacco and Snuff given as indulgences.

Attendants' and Servants' Diet.—Men, 1 lb. Uncooked Meat; Women, $\frac{3}{4}$ lb. ditto; 1 lb. Vegetables, 1 lb. Bread, 2 Pints Beer daily. 2 oz. Tea, $\frac{3}{4}$ lb. Sugar, $\frac{1}{4}$ Coffee, $\frac{1}{2}$ Butter, 1 lb. Cheese weekly. $\frac{1}{4}$ lb. of Meat may be exchanged for Pudding or Pie, at the discretion of the Housekeeper.

Cocoa for One Hundred Patients.— $3\frac{1}{4}$ lb. Cocoa, $6\frac{1}{4}$ lb. Treacle, 3 Gallons Milk, or more, if the Dairy yields it.

Coffee Ditto $1\frac{1}{2}$ lb. Coffee, $\frac{1}{4}$ lb. Chicory, 5 lb. Treacle, 2 Gallons Milk.

Tea Ditto 1 lb. Tea, 4 lb. Sugar, and 2 Gallons Milk.

Mutton Broth Ditto { The Liquor of the Cooked Meat, Bones, &c., 25 lb. Meat, 3 lb. Scotch Barley, Oatmeal, Rice, 10 lb. Turneps, Cabbage, Parsnip, Leek, Onion, Artichokes, or other Vegetables, Herbs, Salt, and Pepper.

Meat Pie Ditto Dripping Crust, 31 lb. Flour, 50 lb. Potatoes, 13 lb. Meat.

Meat Pudding Ditto 25 lb. Meat, 25 lb. Flour—Boiled or Baked.

Meat Stew Ditto 25 lb. Meat, in a Stew with Potatoes and other Vegetables mixed with Rice and Barley.

Plum Pudding 100 lbs. weight. Flour, $46\frac{1}{4}$ lbs., Suet, $6\frac{1}{4}$ lbs., Raisins, $7\frac{1}{2}$ lbs.

(Signed)

S. W. D. WILLIAMS, M.D.,
Medical Superintendent.

HAYWARDS HEATH, 31st December, 1871.

APPENDIX B.

CONTAINING

CLINICAL NOTES FOR THE YEAR,

COLLECTED AND ARRANGED BY

THE MEDICAL OFFICERS,

TOGETHER WITH A PAPER ON

THE EFFECTS OF METEOROLOGICAL FACTS ON
INSANITY,

BY

THE CHAPLAIN.

CONTENTS OF APPENDIX B.

	PAGE.
I. The Physostigma Venenosum in Epilepsy and Progressive Paralysis of the Insane	49
II. Notes on the Bromide of Potassium	55
III. Ergot of Rye in Insanity	56
IV. Nitrite of Amyl in Epileptic Convulsions ...	61
V. The Influence of Sedatives on the Weight of the Body	62
VI. The Nutritive Power of Australian Preserved Meat	67
VII. Vaccination	69
VIII. The Post-Mortem Examinations of the Year ...	69
IX. Medical and Therapeutical Memoranda	74
X. Surgical Memoranda	76
XI. The Effects of Meteorological Facts on Insanity	78

APPENDIX B.

The Physostigma Venenosum, in Epilepsy and Progressive Paralysis of the Insane.

The *Physostigma Venenosum* (Calabar Bean) has been proved by Dr. Fraser,* of Edinburgh, to have special powers over the spinal cord, to destroy reflex action, and to paralyse the heart. Such being the case, it struck us after reading Dr. Fraser's learned paper, that we had in the Calabar bean an agent that might be serviceable in the treatment of epilepsy. We, therefore, instituted a series of experiments with a view to test its value in epilepsy, and the results of these experiments are embodied in the following paper.

Our experiments were conducted as follows :—

We chose twelve ordinary epileptics in the Sussex County Asylum, and noted the number of fits daily for six months. We then had them all weighed, and put them on one grain of the bean each twice daily ; this we continued for six months, weighing them every month, and increasing the dose of the drug by half a grain, until the sixth month, when they took three and a half grains twice daily. We then left off all medicine, and registered the number of fits for another six months.

During the months the patients were taking the drug, special attention was paid to the pulse, temperature, and any unusual phenomena.

For convenience of reference the results of our observations are arranged in a tabular form as follows :—

* "On the Physiological Action of Calabar Bean." By Thomas R. Fraser, M.D.

TABLE I.

Showing the number of Epileptic Fits monthly, for Six Months, before the Physostigma was being given; for Six Months when it was given; and for Six Months after, when it was not given.

	UNDER NO TREATMENT.						TAKING PHYSOSTIGMA VENENOSUM.						UNDER NO TREATMENT.					
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.	No. of Fits.
M. A. T.....	5	2	5	5	...	...	17	...	1	2	3	1	7	2	...	2	4	2
H. B.	26	1	6	25	...	16	74	2	5	2	5	3	37	14	14	1	23	1
M. A. W.	37	47	56	38	12	19	209	31	23	26	29	58	196	38	25	48	47	51
R. W.	35	36	4	37	6	5	123	7	21	3	30	19	102	20	19	17	18	30
C. E.	28	33	37	44	26	26	194	25	19	21	12	23	126	22	31	10	21	33
S. L.	22	33	20	8	1	8	92	3	5	14	17	24	79	8	19	15	19	22
H. F.	19	8	14	11	5	5	62	15	5	8	11	12	66	12	17	12	8	11
E. H.	...	...	4	1	1	7	13	3	1	...	10	2	16	...	20	4	13	6
E. C.	...	...	...	...	3	4	7	2	...	3	1	5	20	...	...	2	3	10
V. D.	1	4	7	8	...	...	20	12	2	9	7	8	41	2	3	7	6	4
A. B.	...	2	...	3	...	1	6	1	26	...	...	...	27	1	...	1	1	4
M. R. C.	29	23	7	18	13	21	111	15	25	23	3	36	118	18	15	8	42	16
							928						835					972

TABLE II.

Showing the *Weights of each Patient, taken Monthly, during the time the Physostigma Venenosus was being used.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Remarks.
	st. lbs.	st. lbs.	st. lbs.	st. lbs.	st. lbs.	st. lbs.	st. lbs.	
M. A. T.	7 8	7 6	7 3½	7 3	7 2	7 3	7 2	Decrease of 6 lbs.
H. B.	6 12	7 6	7 3½	7 3	7 2	7 2	7 3	Increase of 5 lbs.
M. A. W.	6 12	6 8	6 8½	6 9	6 7	6 6	6 9	Decrease of 3 lbs.
R. W.†	8 1	8 2	8 0	8 0	7 11	7 11	7 11	" 4 lbs.
V. D.	11 8	11 5	11 3	11 2	11 2	11 7	11 8	Stationary.
E. C.	7 6	7 3	7 6	7 7	7 8	7 5	7 8	Increase of 2 lbs.
H. F.	9 6	9 6	9 6½	9 2	9 5	9 7	9 11	" 5 lbs.
E. H.	8 4	8 2	8 1½	8 0	8 3	8 2	8 3	Decrease of 1 lb.
S. L.	8 5	8 12	8 9½	8 10	8 9	8 10	8 11	Increase of 6 lbs.
C. E.	10 9	11 12	11 12	.....	11 5	11 5	11 5	" 10 lbs.
A. B.	9 10	9 10	9 0	9 13	9 13	10 2	10 3	" 7 lbs.
M. R. C.	9 8	9 8	9 5	9 9	10 1	9 7	9 12	" 4 lbs.

From table I. it will be seen that in six of the cases under treatment there was a very considerable decrease in the number of fits during the six months they were taking the bean, as compared with the six months previously. And, what is still more remarkable, that when the bean was omitted the fits, without exception, began to increase again in every case. This was very marked in some of the cases, thus—

C. E. had 194 fits during the first six months, and only 126 whilst taking the medicine, but they increased to 135 in the following six months, when it was omitted. In the other six cases there was a slight increase in the number of fits during the administration of the drug, but this increase was not nearly so great as the diminution in the other cases, neither was there the same tendency to return to the normal numbers after the drug was omitted.

In table II. we have recorded the weight of each patient taken on the first day of every month, whilst they were taking the Calabar bean. It will be seen that seven increased in weight, four lost, and one was stationary.

TABLE III.

Showing the Results briefly of the two previous Tables.

Initials.	Total No. of Fits during 6 months before taking the Medicine.	No. of Fits during 6 months when taking the Medicine.	Decrease in No. of Fits.	Increase in No. of Fits.	Alteration in Weight at end of 6 months of taking the Medicine.
M. A. T.	17	7	10	...	Decreased 6 lbs.
H. B.....	74	37	37	...	Increased 5 lbs.
M. A. W.	209	196	13	...	Decreased 3 lbs.
R. W. ...	123	102	21	...	„ 4 lbs.
C. E.....	194	126	68	...	Increased 10 lbs.
S. L.	92	79	13	...	„ 6 lbs.
H. F.....	62	66	...	4	„ 5 lbs.
E. H.....	13	16	...	3	Decreased 1 lb.
E. C.....	7	20	...	13	Increased 2 lbs.
V. D.....	20	41	...	21	Stationary.
A. B.....	6	27	...	21	Increased 7 lbs.
M. R. C.	111	118	...	7	„ 4 lbs.
Total ...	928	835	162	69	

This table contrasts the results of the two previous ones. From it we see that out of the six patients whose fits were lessened three lost weight, whereas only one lost weight amongst those who were not benefited by the drug. But this fact, if worth anything, seems contradicted by the case of C. E., who gained ten pounds, and yet is the very patient whose fits experienced the greatest diminution in numbers. And again, H. B., whose fits increased from six to twenty-one when taking the drug, gained seven pounds. Therefore we fear that the only fact these observations as to weight prove is that, as a rule, the Calabar bean, given in doses up to seven grains a day, does not interfere with the nutrition processes, or, at all events, not materially.

It has already been pointed out that the increase in the number of fits of the six who were not benefited during the use of the drug, was much less than the increase in the number of those improved, so that the improvement in the one class of cases considerably counterbalances the deterioration in the other.

Such being the case, it was reasonable to suppose that, assuming the drug to be the cause of the improvement, *ceteris paribus*, we should find the cases in which this improvement was manifested to be of one peculiar class, and to differ, either in their ætiology or pathology, or in the phenomena accompanying the epilepsy, or the intensity of the prodromata, from the other cases in which there was no improvement. But we are bound to record that, notwithstanding most careful examination, and a thorough knowledge of each case, gained by years of intimate watching, no such distinction could be marked.

If the result of the administration of Calabar bean is to deaden reflex action, we surmised that if it could be demonstrated that the epilepsy in the improved cases was due to eccentric irritation, we might here have the explanation of the improvement, and we directed attention specially to this point, searching carefully in each case for indigestion, masturbation, worms, catamenial irregularity, &c., and for prodromata, but without result. We cannot but think, however, that these are the cases in which the bean is likely to be of service; but unfortunately they are not often met with in asylums, so that we have had no chance of trying. Another point to which we directed our attention, was the fact, as proved by Dr. Fraser,* that the action of the bean tends to expand the arterial walls. Now it is a well known fact that in some cases of epilepsy a remarkable pallor often accompanies, and in some cases precedes, the period of tonic spasm of the seizure, together with a lessening of the volume of the pulse. We could not, however, find that this pallor was, as a rule, confined to those

* Loc. cit.

cases benefited by the drug, neither could we prove that the length of time it lasted or its intensity was diminished. Indeed it was an ordinary accompaniment of the fits alike in some of the unimproved as the improved. Epilepsy is believed by some to be due, as Dr. Needham reminds us, to primary irritation of the sympathetic, causing the vaso motor nerves to increase arterial tension, and so producing sudden cerebral anæmia; and Dr. Fraser's experiments prove that the effect produced on the heart by the bean is not through the vagi nerves, but through the cardiac ganglia. So that the bean may relieve epilepsy by its power of affecting the sympathetic, and thus reducing the tendency to the above mentioned arterial tension.

But if, in truth, the Calabar bean has any influence on epilepsy, we cannot but think that its power must lie in the fact, conclusively shown by Dr. Fraser, and which our own observations abundantly bear out, that even in moderate doses it causes a decrease in the volume and frequency of the pulse, acting, of course, through the heart. In this property it resembles bromide of potassium. Now, the best authorities seem to be agreed that the proximate cause of epilepsy is exaggeration of the impressibility and increased irritability of the motor excitability of the functions of the medulla oblongata. This must be due to mal-nutrition changes in the organ, and would therefore lead us to suppose that any power acting through the heart, and reducing the flow of excess of blood, would lessen the number of fits, by the mere fact of there being less deleterious matter stored up in the medulla. Granted this, and the decrease in the number of fits by the Calabar bean is explained.

Regarding the physiological effects of the bean, there is no doubt that it causes increased action of the cutaneous glands, as was evinced in every case by an unusual moisture of the skin even when the dose was but small. This was specially remarkable in the cases of Progressive Paralysis. Catharsis and nausea are said often to accompany the use of the drug; but they have shown themselves in none of the cases we have had under treatment, not even in those taking as much as seven to eight grains daily.

The effects on the pulse and temperature were in most cases very decided, the pulse being reduced frequently five or ten beats per minute, and the temperature from a half to two degrees. In many of the cases there was marked indolence, and a decided flaccidity, so to speak, of the muscles generally.

I have also tried this drug in several cases of *Progressive Paralysis of the Insane*, and at the present time have three such cases under treatment. When the medicine was first ordered, fully six months ago, all the cases were in the first stage of the disease,

and they have taken it regularly up to the present time, but with no benefit whatever. On the contrary, in every case the disease is advancing with unusually rapid strides.*

Notes on Bromide of Potassium.

The fact that Bromide of Potassium frequently reduces the number of epileptic seizures, and may sometimes altogether arrest them, has been so often demonstrated that no further experiments are needed on that score; but it has been recently hinted that its prolonged use was injurious to the economy in many ways, notably that it caused loss of memory, diminished the appetite, reduced the weight of the body, and even predisposed to Phthisis.

With a view of satisfying ourselves on these points, the following observations were made :—

Ten patients, four females and six males, were ordered the Bromide in doses varying from 20 to 40 grains three times a day. Their weights were taken weekly, and the other effects carefully noted. The following are the results of these observations, which extended over periods ranging from six weeks to eight months :—

In three who were taking the Bromide alone there was a loss of weight at the end of the fourth month, and this varied much in different cases, and even at different times in the same cases, the greatest loss being eleven pounds, and the lowest, one pound and a half. All these gained more or less during the first six or eight weeks, that is, before the dose was increased, and when it did not exceed 60 grains daily.

In another who had Indian Hemp, combined with the Bromide, the decrease was more rapid and marked; so much so that their use had to be discontinued at the end of the sixth week; and during the whole time this patient was taking the mixture the excitement under which he laboured never abated for a day, though a very perceptible benefit, with respect to the latter, resulted from a change of treatment.

Of the remaining six, one was stationary, while the five others gained considerably; the greatest gain being twenty-six pounds and a half, the least one and a half, and the average eight and a half.

The diet was throughout unchanged; and of the patients selected eight were epileptics, while they were all cases in which the use of the medicine seemed indicated, for in our opinion it is scarcely justifiable to prescribe a drug merely for the sake of trying its supposed effects.

* Reprinted from "The Practitioner," for February.

Numerically, these observations are somewhat limited, but, judging from them, it would seem that when the Bromide is given in doses not exceeding one drachm daily that it almost invariably increases the weight of the body ; and that even when this dose is doubled the weight need not necessarily diminish, but rather that the chances are in favour of its increasing.

In those in whom a loss of weight was observed there was no corresponding loss of health or strength, with the exception of the case above referred to, who was taking in addition the Indian Hemp, and even in him there is no good reason to attribute the weakness to the action of the medicines.

The appetite was never impaired, and the functions of the secretory and excretory systems were not perceptibly affected in any instance.

Regarding the failure of memory, so frequently spoken of in the medical papers, no opinion can be formed from the above, as the observations had to be confined to the insane ; but in a long *rôle* of cases, in which we previously used this most important remedy, no such unpleasant sequel was ever noticed ; in fact, just the opposite condition nearly always prevailed. The mental powers were rendered stronger.

The Ergot of Rye in Insanity.

Acting upon the recommendation of Dr. Crichton Browne, who, it appears from an article in the "Practitioner" for June, 1871, had obtained some amount of success from the employment of Ergot of Rye in Insanity, a series of observations was made at this Asylum in order to arrive at some practical results relative to its value as a therapeutical agent in the treatment of mental diseases.

Dr. Browne has especially recommended it in those cases where there appears to be fulness of the cerebral blood vessels, and also where a tendency to periodic attacks of maniacal excitement occurs. He believes that the drug has the power of relieving the former, shortening the duration of the relapses, and also lengthening the intervals between the periodic attacks.

But though, as will be seen by reference to the following cases, they were such as he describes as being specially influenced by the drug, we did not find any remarkable effects result from its use. Therefore our experience leads us to believe that Ergot has in itself no specific action in controlling the maniacal outbreaks of the insane. We were led to acknowledge its failure unwillingly, for, from some apparent success in the earlier observations, it was hoped that it

would be found of valuable service. But as repeated trials only demonstrated more and more its almost entire uselessness, we were compelled to lay it aside and turn to more potent remedies.

We employed several preparations of the drug, as the infusion, decoction, tincture, a modification of the tincture and infusion, the liquid extract, and combinations of these various preparations. Lastly, we took the precaution of obtaining the Ergot from different wholesale houses, lest the quality of the drug should vary according to the vendor.

We commenced the experiments on ourselves, the writer of this article having repeatedly taken it, even in considerable doses, but nothing like "colicky pain in the stomach or bowels," nor any amount of mental depression or somnolence, was experienced.

Once, however, after a dose of 40 minims of the liquid extract, a peculiar tingling in the fingers, singing in the ears, and a sensation of lassitude seemed to supervene. These symptoms were, however, probably due to the expectancy of some such arising, for as confidence in the inertness of the drug asserted itself, so these sensations were no longer observed, even from increased doses. The pulse and temperature were taken both immediately before and after each dose, as well as some short time subsequently, but no change whatever took place in either.

During our experiments on the patients we carefully avoided the use of any other drug whatever, such as Bromide of Potassium, Morphia, &c., so that the Ergot might have a fair trial on its own merits alone.

In drawing attention to some of the patients we have treated with Ergot it has not been considered necessary to give the daily observations, which extended over several months, though frequently the state of the pulse, temperature, &c., were taken more than three times a day.

CASE 1.—*Homicidal and Suicidal Mania*.—S. A., female, age 57. Of bilious melancholic temperament, with a strong hereditary tendency to insanity. On admission she was extremely melancholic; since then her manner changed as her health improved, and now she has lost her melancholia and is subject to attacks of mania. There are no delusions, but the case is a typical one of moral perversion. The attacks of excitement become more and more frequent and severe, with shorter intervals. During the intervals she is tolerably sane, and works pretty well with her needle, but is very discontented, and has a tendency to stir up the other patients to discontent. The treatment most successful has been subcutaneous injections of half-grain doses of morphia, the good effects of which she will even acknowledge herself.

In this case Ergot appeared at first to be of great benefit, for after a few doses she became quieter than she had been for some time; but this effect soon passed off, and was never after repeated. The apparent success of the drug here was probably due to moral persuasion, for having been told that the medicine would do her

good if she persevered with it, and might eventually enable her to return to her husband, she exerted a certain amount of self-restraint.

CASE 2. *Epileptic Mania*.—H. B., female, age 23. Has been epileptic from birth, and is subject to paroxysmal attacks of violence. On admission she seemed of very low intellect, her health being also in a feeble state. With nourishing diet, attention to the bowels, &c., her health improved, and with it her mental faculties seemed to brighten up; and from being in a listless, useless state, she became cheerful and industrious. Still the fits of excitement would come on occasionally, and she was hardly ever free from bruises or other injuries through falling down in her epileptic attacks. She was quieted by subcutaneous injections of morphia.

The use of ergot was followed after the first few doses by calm sleep; in fact, $\mathfrak{z}$ i of the liquid extract seemed to have acted successfully in less than half an hour. But after a time the drug lost its effect, and even increased doses produced no satisfactory result. She has since died, some time, however, after having discontinued taking the ergot.

CASE 3.—*Melancholia*.—J. C., male, age 26 years. The predisposition to insanity appeared to result from having been crossed in love, and the exciting cause was hearing a nobleman speak at a so-called revival meeting in Brighton. Has delusions of a religious character, such as believing he sees Christ, &c.; is suicidal. Seems to suffer from pain in the head, especially if spoken to and required to exert his mind or memory. There is fulness of the external vessels of the head, and he constantly presses his temples with his hands.

The ergot had not the slightest effect, but he seemed benefited by a sedative treatment.

CASE 4. *Epileptic Mania*.—G. H., male, age 22. Is of a very scrofulous disposition, and suffers from disease of the femur. Has periodical attacks of excitement lasting about a week, characterised by extreme violence and hallucinations of sight. He is sometimes in an ecstatic state. During the intervals he appears a quiet, inoffensive lad, with, however, a morbid tendency to religious ideas.

He had liquor ergotæ in doses of $\mathfrak{z}$ i and $\mathfrak{z}$ iss. After taking it he became quieter, and the pulse fell from 130 beats per minute to 92, the temperature remaining the same. The effects were, however, doubtfully due to the action of the drug, being probably but the natural sequence of the attack.

CASE 5. *Acute Mania*.—H. B., male, age 33. Was a driver in the Royal Artillery; suffered from sunstroke many years ago, and became insane. On admission he was conscious, but could not or would not attend to questions. His manner was excited and his spirits exalted. He was in a continual state of restlessness, which increased to a distressing extent. Various remedies were tried to calm this morbid excitability, which appeared to have something of a reflex nature, but none were successful. Strychnine and phosphoric acid had the remarkable effect of increasing the irritability and restlessness. Temperature of head and skin generally above the average, fulness of cerebral vessels.

Ergot was tried repeatedly, but had not the slightest action either on the pulse, temperature, or excitability. He has lately,

after having been almost worn out by his constant agitation, much improved under a combination of morphia and chloral.

CASE 6.—*Epileptic Mania*.—J. I., male, age 25. Has suffered from epilepsy since birth, and for some years has also had attacks of violence, alternating with the fits about once a month. At times he seems to be in an ecstatic state. During the intervals of excitement or *status epilepticus*, he used to be quiet and industrious, but has now become too lost and demented to be able to employ himself in any way. Digitalis, till it affected the pulse, was found the most successful remedy.

The ergot appeared to slightly increase the pulse and temperature, and after a dose or two he seemed quieter. But it was on repetition found useless.

CASE 7.—*Epileptic Mania*.—S. P., female, age 30, domestic servant, unmarried. The epilepsy came on shortly after her first menstruation, but her fits were slight till she was delivered of an illegitimate child, when she suffered from puerperal mania, and has been insane at intervals ever since. She is naturally of a violent temper, suffers at times from intense headache, especially on the right side, and has a slight degree of prolapsus uteri.

Here, though ergot seemed to reduce the frequent pulse (132 to 80) it did not have any remarkable effect in subduing the excitement or shortening its duration. The temperature remained constant.

CASE 8.—*Acute Mania*.—S. J. C., female, age 22, unmarried, domestic servant. The mania supervened on a desertion by her lover, and took the form of constant restlessness, singing, and occasional shouting. She mistook individuals, but answered questions readily and correctly. Morphia, even in half grain doses subcutaneously, increased the restlessness, but chloral was nearly always successful in giving her rest. As the insanity and restlessness seemed due to suppressed catamenia, treatment was employed in order to endeavour to bring it on. Ergot was administered in full doses at the same time. At first she appeared quieter, but on repetition it did no good, even in increased doses; in fact she became much worse. The drug was eventually discontinued and chloral substituted, under which she became much quieter. Her physical health was improved by cod liver oil and tinct. ferri Mur. At last, after not having been "unwell" for five months, she menstruated, and has been rapidly improving ever since, both mentally and physically.

CASE 9.—*Acute Mania*.—E. W., age 50, female, married. The cause of insanity supposed to be from morbid ideas of religion. She was in a very feeble state of health, and constantly injuring herself by falling violently to the ground. Very incoherent, deluded, and excited. There is extreme restlessness, and often abject terror at some imaginary evil. Chloral was found to soothe her for a time.

The ergot had not the least effect in subduing the mental agitation or altering the state of the pulse or temperature, in either of the above cases.

CASE 10.—*Epileptic Mania*.—F. D., female, age 46, married. A stout, healthy-looking woman, but with expressionless features. Has had fits from childhood, but they became much worse on her attaining her 32nd year. Is very suicidal and dangerous. Her paroxysms of violence come on about once a month, generally at the menstrual period. She is then very incoherent, rambling in rythmical sentences, and using most profane and obscene language.

Ergot was given in repeated and large doses, but without avail. Opium combined with digitalis always soothed her, and under the K. Br. treatment her fits have become much less frequent.

CASE 11.—*Epileptic Mania*.—J. S., female, 25, single, servant. A pleasant-looking, healthy person, though naturally of a violent temper, but when unexcited appeared pretty rational and industrious. The insanity was the result of an injury to her head through being run over by a waggon. Attacks of excitement, or the status epilepticus, occur about once a month; as there is some menstrual irregularity, the relapses are probably dependent on the menses.

Ergot, in this case, was not noticed to do any good, and neither affected the pulse nor the temperature.

CASE 12.—*Emotional Mania*.—E. S., female, age 34. A married, robust, healthy woman. On admission she suffered from puerperal melancholia, being very depressed and suicidal. She is now subject to maniacal relapses, and during the excitement her skin is much hotter than natural, and covered with moisture, and her pulse accelerated.

The effects of ergot at first were striking, it seemed to reduce the temperature and pulse, while it subdued her mental agitation. But in subsequent attacks it was of no avail, and recourse was had to chloral and morphia, which generally calm her.

CASE 13.—*Puerperal Mania*.—M. P., female, age 39, married. A plethoric woman, with a dark, gipsy appearance. She is subject to periodic attacks of violence and noisiness, with lucid intervals. During the paroxysms the vessels of her head appear to be much congested.

Digitalis and opium are very successful in quieting her, but ergot had no effect, though it was tried for a long while.

CASE 14.—*Mania*.—A. M., female, æt. 40. A short, thick-set, plethoric person; her left arm has been amputated. She has delusions of wealth, and constant fear of being robbed. Suffers from frequent attacks of excitement with great violence.

Ergot was given regularly in large doses, and was thought once or twice to be of use, but these benefits were illusory, and it was given up as useless.

CASE 15.—*Mania*.—A. O'B., female, æt. 37. Is especially deluded on religious subjects, and her manner is at all times eccentric, especially when by herself. She is subject to occasional outbreaks of excitement, when she is very noisy and troublesome, but not especially violent.

Ergot was given repeatedly for some time, but had no effect.

These are some of the cases on which we have tried the drug; it will be noticed how peculiarly applicable one would imagine it was to many of them. Thus, we have fulness of the cerebral vessels in Nos. 3, 5, 12, and 13; probable or undoubted uterine disease in Nos. 7, 8, 9, 10, 11, 12, and 13; and, lastly, periodic attacks of excitement in Nos. 1, 2, 4, 10, 11, 12, 13, 14, and 15.

But though an apparent success seemed to attend its use at first in a few instances, the effects, as we have previously noticed, were

transitory and illusory, the composure more probably resulting from a certain amount of moral restraint exerted by the patients when they found themselves honoured by the doctor's minute and constant attention.

Nitrite of Amyl in Epileptic Convulsions.

It is now many years since we first saw the Nitrite of Amyl used in angina pectoris, and for the pain of aneurism; but it seems unaccountably to have fallen into desuetude, and we had almost forgotten its existence until reading an interesting article by Talfourd Jones, in a late number of "The Practitioner." This gentleman there gives ample proof of the great benefit which may be obtained from its use in the above-mentioned diseases, and also in asthma and some forms of neuralgia. The following sentence occurs in his paper—"What is known of the pathology of epilepsy leads one to think that inhalation of Amyl may be of service, both in preventing a fit that is about to occur, and likewise in stopping or diminishing the actual fit itself."

Acting on this suggestion, we have tried it in seven cases of epilepsy, representing altogether twenty-three fits, and have had some reason to feel satisfied with the trials, so much so, that we are now engaged in making more numerous and more accurate observations, which we hope to publish in some future number of these reports.

With two exceptions out of the seven cases, the second stage of the fit was shorter than usual, and far less severe, the clonic spasms being apparently controlled by the Amyl. The face was nearly always paler, and rarely showed that congested, horrible appearance, familiar to all asylum physicians, while the flushing so commonly noticed after inhalation of Amyl in other diseases was present here in one case only, and this was one of the cases in whom no mitigation was observed.

The rapidity of the circulation was in no instance diminished; indeed, it sometimes was quicker than usual, but there was seldom that throbbing, laboured pulse which is considered so characteristic of epileptic convulsions. The pupils were not perceptibly affected.

It would appear from the above that the Nitrite of Amyl possesses the power of shortening the second, and, consequently, also the third, stage of an epileptic seizure, at least, in the majority of instances, though the above cases are of course too few from which to establish any very reliable inferences. It is almost impossible to try its real or supposed preventive powers in a lunatic asylum,

as the insane rarely or never complain of the epileptic aura, or of any other premonitory symptom of an approaching fit.

The inhalation of Amyl seems perfectly free from danger to life, and may be entrusted to the care of any intelligent nurse. The following is the mode of administration adopted in this Asylum. The nurse has a cone of blotting paper always ready, into which is dropped from four to six minims of the Amyl; the cone is then applied to the patient's face, and one of the medical officers sent for, who remains with the patient until the end of the fit.

The Influence of Sedatives on the Weight of the Body.

Now that mechanical restraint has fallen almost entirely into disuse in asylum practice, it has become an important consideration how to calm the furious maniac's excitement, and prevent him doing harm to himself or others, as well as to protect the furniture and fittings of the wards from his destructive tendencies. Various means are employed according to the nature of the case; of these, none is so much used as the sedative plan of treatment. The benefit from this plan was, like most valuable discoveries, found out accidentally. Some ointment containing a large quantity of opium, in use for one of the patients, having been swallowed by another, while in a raving state of mania, to the surprise of those with him he became calm and amenable to discipline. Since then sedatives in various forms have become a necessary part of asylum practice.

This sedative treatment, however, opens a serious question for the consideration of all alienists, viz., how far it can be safely given, and whether its prolonged use is not followed by ulterior disadvantages.

There are those who think that the paroxysms of mania are a kind of opening of the mental safety-valve, whereby the excess of nervous energy, that has been accumulating, as it were, during the intervals, escapes, and so relieves the patients. They believe that it is not well to check this, but, shutting the patients in a warm room, allow them to expend their excess of nervous force, without any interference by the use of sedatives.

Certainly there are some cases in which the excitement will terminate in a sudden outbreak of violence, the patient becoming calmer after smashing a window, breaking the furniture, knocking down an attendant or fellow patient, or occasionally killing one or the other.

But the instances are rare in which the violent paroxysm takes place without some previous warning, and hence it is possible by

the timely application of a sedative in a certain measure to calm the patients' *furor*, and so prevent them expending their surplus energy on the furniture, or the lives and limbs of those around them.

There are some whose maniacal relapses occur so frequently, and the intervals between which are so short, that it is sometimes considered advisable to continue the sedative treatment during the remissions, so as to anticipate the outbreaks.

Again there are others who seem to be in a continual state of destructiveness, restlessness, noisiness, or violence. Here the sedative treatment, almost constantly applied, seems to be of value; it calms and soothes, and by keeping the nervous force in abeyance prevents the exhibition of violence, or the desire for mischief or uproar.

In these cases where sedatives are employed so frequently, they simply become another form of restraint; in fact, a mental has supplanted the mechanical restraint. And we have to consider whether these powerful drugs do or do not cause temporary or permanent chemical changes in the nerve cells of the brain of an injurious nature. Certainly this mental restraint is so far superior to the physical, that it does not gall the patients' feelings; in fact, it places them in a happy frame of mind. Of this the patients themselves are fully aware, for they willingly submit to the treatment, and frequently, as they feel the attack coming on, ask to have it.

But still it is important to bear in mind that while deadening, as it were, the mental faculties with narcotics, it is possible that the exercise of self-restraint is prevented. Thus the important moral treatment of encouraging the patients to overcome their destructive and violent tendencies, by subjugating the animal passions to the will, is rendered unavailable.

It is, therefore, a serious question whether this sedative treatment may not be carried too far, and if an entire freedom from it might not, in many cases, shorten the duration of the relapses, and lengthen the intervals between them. Perhaps some of the striking results sometimes observed on the introduction of a new drug into asylum practice, may be really due to the discontinuance of sedatives.

But these are only subject matters for inquiry. We do not presume to offer a decided opinion, though we are fully persuaded of the apparent good sedatives do in the majority of cases. And no one, however much prejudiced against their use he may be, can deny their value to procure sleep at needful times; for all have seen how the maniac, one day furious, restless, and dangerous, after a sound sleep procured by a narcotic, will rise calm and quiet on

the morrow. Therefore from this, and other apparent benefits from their use which we have observed in practice, we may argue that the sedatives, by calming the patient's agitation, are possibly doing good.

There is another charge, however, that has been laid to the effects of sedatives, viz., that they occasion a progressive loss of weight.

This loss of weight evidences a want of proper assimilation of formative material or a waste of formed substance. Therefore, a loss or gain in bodily weight will, in a great measure, enable us to judge whether or how far the sedatives do physical harm; and if the patients are or are not being "pushed one step further down the hill in the direction of death." Dr. Clouston's researches led him to make the latter assertion, and it behoves all interested in the matter to pursue the investigations of the true action of narcotics on the body to the utmost extent, and endeavour to furnish that "more exact observation" demanded by Dr. Maudsley in his admirable address as President of the Medico-Psychological Association.

As a step towards this, we have for some months past carried on a series of experiments. We have treated above fifty cases with various sedatives, and have had them weighed regularly once a fortnight.

The difficulties attending the perfect carrying out of this means to estimate the value of sedatives, is greater than at first sight appears. There are so many secondary considerations to be taken into account that influence the result of such observations.

For instance, it is stated as a hopeful sign of convalescence in recent mania, if a patient lose weight, and that a steady gain in weight without a corresponding improvement in the mental powers, is a sign of gradually decreasing cerebral vigour, and a tendency towards an incurable dementia; while those patients who have become insane from deprivation of food, increase in weight as their mental faculties improve.

Then a patient may persistently refuse food at times, whether or not under treatment, or he may eat it in a hurried manner, so a loss of weight will occur from a want of food, or its imperfect digestion.

Therefore, it was necessary to obtain for observation such cases as were not much given to change, either towards convalescence or a rapid dementia; and those that did not generally refuse their food, nor eat without properly masticating it. Still, though we have endeavoured to choose only those cases which have remained in a pretty steady state, both physically and mentally, yet, to a certain extent, the result of our investigations has been unavoidably influenced by one or other of the above causes likely to falsify the actual results. Hence these results are not so satisfactory as we could have wished them to be.

The following is a list of the drugs we employed, with their respective doses ; unfortunately we omitted chloral :—

Tinct Digitalis	℥xx.	gradually increased to	3ss.
— Cannab. Indica	℥xx.	„ „	3ss.
— Hyoscyamus	℥xx.	„ „	3ss.
Liquor. Morphiae	3ss.	„ „	3i.
Hydrocyanic Acid. Dil	℥iii.	„ „	℥v.
Sedative Mixture	3ss.	„ „	3i.

This latter preparation was introduced by Dr. Robertson as a substitute for chlorodyne ; its formula is as under :—

R. Morphiae Hydrochlor gr. $\frac{1}{2}$.
 Acid. Hydrocyan Dil. ℥v.
 Sp. Chloroform ℥xlv.
 Syrupi Simpl. ℥v.
 Tinct. Capsici ℥v. m.

In doses of from ℥xx. to 3i., it has been proved to be of great service in many cases of maniacal excitement and melancholia.

TABLE I.

Disease.	Lost Weight.	Gained Weight.	Average Loss.	Average Gain.
Mania	50·00	50·00	5½ lbs.	4½ lbs.
Melancholia.....	70·00	30·00	4 lbs.	1¼ lbs.
Chr. Mania	37·50	62·50	1¼ lbs.	5 lbs.
Epilepsy	71·43	28·57	5½ lbs.	2 lbs.

TABLE II.

Name of Drug.	Lost Weight.	Gained Weight.	Average Loss.	Average Gain.
Digitalis.....	100·00	0	4⅔ lbs.	0
Cannab. Indic....	83·83	16·17	3⅛ lbs.	5½ lbs.
Hyoscyamus	60·00	40·00	3⅙ lbs.	3 lbs.
Morphia.....	80·20	19·80	4⅔ lbs.	1 lb.
Hydrocyan Acid	16·66	83·34	1 lb.	4 lbs.
Sedative Mixture	57·14	42·86	7 lbs.	1⅙ lbs.

We have arranged the results of our investigations in the form of two Tables. Table I. shows the various mental diseases under treatment, and the corresponding numbers of patients in which an increase or decrease of weight occurred. To render these results clearer and more uniform, we have calculated the actual number of patients up to percentages.

From this it will be seen that the largest proportional number of patients who lost weight suffered from epilepsy; while the greatest proportional number of those who gained in weight were chronic maniacs. In the third and fourth column of Table I. we have given the average loss and gain for each class of diseases. It will be seen that the maniacs and epileptics lost the most, but that the former had the advantage over the latter in gaining much more. In chronic mania the loss was insignificant, while the gain was pretty considerable.

Table II. gives the various drugs with the corresponding percentage of patients who decreased or increased in weight while under their influence.

It will thus be seen that the whole of the patients taking *Digitalis* lost weight, and that the average loss among them was $4\frac{4}{5}$ lb., which was a greater average loss than from any other drug, except from the sedative mixture, and this decrease occurred with only moderate doses.

Cannabis Indica seemed to occasion the next most frequent loss of weight, but here the average gain seemed high; this, however, was due to one or two patients having rapidly and considerably increased in weight during its exhibition.

Morphia comes next in order as to the proportional number losing weight, and here we have to remark, that there were several cases on which we tried the drug, but who became so sick that we had to leave it off; they lost weight rapidly, and did not recover it for some months, but are not included in the above tables.

Hyoscyamus and Sedative Mixture both occasioned a loss in the majority of the patients, and the average decrease in weight was considerable in the latter, while the corresponding gain was insignificant.

Of all the drugs *Hydrocyanic Acid* seemed the least disadvantageous, so far as loss of weight was concerned; this loss was in only one case, and that of rather less than 1lb. While on the other hand the proportional average gain was well marked.

Hence we are led to the conclusion that sedatives do occasion a loss of weight, but that it is not to such a great extent as to cause any permanent injury if employed for a short time, with intervals between its use to allow the patients to recruit their physical

health. And probably if we could possibly weigh a patient at certain intervals during the paroxysms of an attack of mania we should find the excitement so wearing out his bodily health as to occasion a loss of weight, while on the administration of sedatives to allay this excitability we should find the patient was actually gaining in weight.

Though these weighings are not so reliable as we would wish, yet we hope that in future experiments we shall be able to carry out the observations in a more extended and satisfactory manner; meanwhile we trust that others will also work in the same direction, so that the real value of the sedative treatment may be fully proved.

The Nutritive Power of the Australian Preserved Meat.

In an editorial note on the Australian Preserved Meat, in "The Lancet," for Jan. 27th, is the following sentence—"A report derived from the evidence of officers of public institutions, in which this meat is now used would be specially interesting and instructive." We think, therefore, some experiments carried on here on this question, although rather crude, may be considered of sufficient importance to warrant their being placed on record.

Our experiments were made with a view to roughly testing the nutritive power of the Australian Preserved Meat as compared with fresh meat before introducing it into our dietary.

The chronic patients of this asylum who are in good health, and not under special medical treatment, have, *inter alia*, males, 22, and females, 24 ozs. of fresh uncooked meat during each week, exclusive of the soup. We took twenty of these patients, ten males and ten females, and for one month gave them a similar quantity of Australian preserved mutton, instead of the fresh meat, taking care that the other ingredients of the dietary should be exactly as usual. We weighed these patients carefully at the commencement of the month, at the expiration of a fortnight, and at the end of the month, and the following was the result :—

Name.	Dec. 2nd.	Dec. 16th.	Dec. 30th.	Result.
	st. lb.	st. lb.	st. lb.	
S. I. C.	9 0 $\frac{1}{2}$	9 6	9 5 $\frac{1}{2}$	+ 5
T. R.	9 4	9 7 $\frac{1}{2}$	9 8	+ 4
B. S.	7 11 $\frac{1}{2}$	8 0	7 11 $\frac{1}{2}$	
S. G.	10 2	10 3 $\frac{1}{2}$	10 1	- 1
L. R.	9 1	9 1 $\frac{1}{2}$	9 1 $\frac{1}{2}$	+ $\frac{1}{2}$
C. P.	8 3	8 3	8 3 $\frac{1}{2}$	+ $\frac{1}{2}$
A. S.	8 1	8 0 $\frac{1}{2}$	8 0	- 1
M. A. E.	7 0	7 0 $\frac{1}{2}$	7 0	
C. H.	10 10	10 11 $\frac{1}{2}$	10 11 $\frac{1}{2}$	+ 1 $\frac{1}{2}$
L. G.	9 12 $\frac{1}{2}$	9 11 $\frac{1}{2}$	9 10	- 2 $\frac{1}{2}$
G. G.	11 3 $\frac{1}{2}$	11 2	11 3 $\frac{1}{2}$	
S. F.	8 8	8 8	8 12	+ 4
J. P.	9 2	9 5 $\frac{1}{2}$	9 3	+ 1
H. T.	10 1	10 1	9 13 $\frac{1}{4}$	- 1 $\frac{3}{4}$
E. C.	9 10 $\frac{3}{4}$	10 0	9 12 $\frac{1}{2}$	+ 1 $\frac{3}{4}$
J. M.	9 5 $\frac{1}{2}$	9 8	9 5	- $\frac{1}{2}$
T. G.	9 12 $\frac{1}{2}$	9 10	9 13 $\frac{1}{4}$	+ 3 $\frac{3}{4}$
S. T.	10 1	10 0	10 0 $\frac{1}{2}$	- $\frac{1}{2}$
A. F.	9 11 $\frac{1}{4}$	9 11	9 12	+ $\frac{3}{4}$
H. B.	12 0	12 1	11 10	- 4

From this it will be seen that thirteen out of the twenty either increased slightly in weight or remained stationary, and that of the others only one lost anything worth speaking of, viz., four pounds, and this must have been a purely adventitious circumstance; moreover, there were no symptoms in any of them, either of a physical or mental nature, to lead to the supposition that they suffered from the change of diet.

We think, therefore, we may fairly presume that the Australian preserved meat is, weight for weight, quite equal to uncooked fresh meat as a dietetic agent.

There is, however, the cost of the Australian meat to be accurately estimated before an opinion can be given unreservedly in its favour. And this point unfortunately does not come out so well as we had hoped. This is due to two reasons; (1) owing to increased demand the price has gone up fully 1 $\frac{3}{4}$ d. since we commenced to use the meat, and (2) the contents of the tins do not weigh out to the quantities stated. Thus, during the thirty-two days the twenty male and female patients were on the Australian mutton 133 $\frac{3}{4}$ lbs. were consumed. This quantity cost us £3 17s. 8d.

The cost of an equal quantity of the fresh beef supplied from the Asylum farm (on which we slaughter all the meat for the establishment) was £4 11s. 11 $\frac{1}{4}$ d. Therefore the advantage in favour of the Australian meat was only a saving of 14s. 3 $\frac{1}{4}$ d., or a little over 1 $\frac{1}{4}$ d. per pound. In other words, the Australian mutton cost us about 7d. a pound, the fresh beef 8 $\frac{1}{4}$ d.

The Vaccinations.

On the 16th of March the Commissioners in Lunacy issued a circular, calling attention to the small-pox epidemics, and recommending the Superintendents of Asylums to have the patients under their care vaccinated.

Before that circular was received at Haywards Heath we had already vaccinated nearly all the cases admitted subsequent to 1865, that being the date of the last general vaccination here.

The total number subjected to the unpleasant ordeal was 301, and of these 207 were successful. as far as regards the appearance of the typical vesicle, on or about the eighth day. The vesicle arrived "at its head" much more frequently before the eighth day than after it.

Oddly enough, the failures on the males' side were nearly twice as numerous as on the females'. In many the accompanying fever was so intense that rest in bed and fever diet had to be enforced.

At first there was great difficulty in procuring primary lymph in sufficient quantity, and afterwards secondary lymph was often used, care being taken to select it only from those cases which presented the typical vesicle. It did not seem that the latter was at all inferior, in its results, to the former.

No case of small-pox occurred at this Asylum, though the disease was, to some extent, prevalent in the neighbourhood.

The Post-Mortems of the Year, with Remarks.

During the year 1871, twenty-nine *post-mortem* examinations were made in this Asylum. Of these the following six only require special notice :—

I. *Leucocythæmia*.—H. R., female, age 30, much under medium height. Thirty-six hours after death. The body was very much emaciated, and the skin had a yellowish tinge. The brain was extremely pale and ex-sanguineous, and the choroid plexuses were absolutely colourless. No fluid in the ventricles. Lungs were healthy ;—right weighed 12ozs ; left, 11ozs. The heart also was perfectly sound. The liver weighed 53ozs. It was very pale, and easily torn. Gall bladder contained 2ozs. bile. The kidneys were apparently healthy, and so were the supra-renal capsules. Each kidney weighed $4\frac{1}{4}$ ozs. The spleen was 12ozs. in weight, and the only organ which did not present a peculiar pallor ; it was congested. With some difficulty a section of it was prepared for the microscope, showing the vessels distinctly. These were crowded with nucleated corpuscles. The lymphatic glands in the mediastinum were much enlarged ;—in the neck, groin, and axilla they were not, or only slightly so. On the blood being examined with a power of 280 diameters, colourless cells were seen in abundance.

Remarks.—Neither the spleen nor the liver was much above the average weight ; but in this estimate we must remember the extreme lightness of the body, which, at death, could not have

weighed six stones. On referring to the accounts of the last fifteen *post-mortems* made in this Asylum, we find the average weight of the spleen was as 1 is to 340, while here it was 1 to 112. During life the blood was frequently examined microscopically, and, to quote from the Case Book, "showed many colourless corpuscles in the field of the microscope." It was also remarked that the red did not collect into rouleaux as readily as usual.

The more prominent symptoms were extreme paleness of the face, great debility, frequent attacks of vomiting, with diarrhoea and epistaxis. There was neither ascites nor albuminuria. The treatment consisted in the exhibition of small doses of iron, with nourishing food, and a guarded allowance of stimulants. To check the diarrhoea, no remedies appeared equal to gallic acid and opium. Duration of disease unknown.

On admission patient was suffering from acute asthenic mania, which rapidly subsided into the chronic form.

II. *Dilatation of Stomach, &c.*—M. B., female, age 45. Forty-seven hours after death. Slight signs of decomposition present. Rigor mortis not well marked. The membranes of the brain and the sinuses were congested, but the brain itself *appeared* normal. The left pleura was adherent to the walls of the chest, the lung emphysematous, and congested at base. Heart was small; its muscular fibres pale, and the mitral valves oedematous. On opening the abdomen, the stomach was seen to reach to the pubes, and almost entirely covered the intestines. The muscular coat was very much atrophied, and in some places could scarcely be detected. No thickening of the pylorus. The viscus contained four pints of a dark grumous fluid, somewhat resembling semi-digested blood. Intestines were congested throughout. The structure of the liver was pale; its weight 30oz. Pelvis of the right kidney contained above a half drachm of pus. Other organs healthy.

Remarks.—Until a few weeks previous to death patient showed no positive signs of disease. She was always a voracious eater, and it was the partial loss of appetite which first drew attention to her condition. Five days before death vomiting and diarrhoea set in. The latter readily yielded to ordinary treatment, while the former was not relieved by anything. She became gradually worse, and a few hours previous to death the vomited matters were similar to those found in the stomach at the autopsy.

When admitted patient was in a state of acute mania.

III. *Arachnoid Cyst.*—S. C., female, age 40. Twenty-four hours after death. External appearances normal; rigor mortis present. On opening the skull and removing the dura mater, a large loose sac was observed lying on the upper surface of the middle lobe of the left cerebral hemisphere. It was seven inches long, three broad, of an oval, flattened shape, and contained about three ounces of semi-fluid blood, mixed with small fibrinous shreds. The effused blood was of a rather florid colour. No connection could be made out, even by the most careful examination, with any of the vessels or sinuses. It appeared to be formed by two layers of the arachnoid, which were slightly hypertrophied. There were no other signs of inflammatory action, recent or remote. The brain substance corresponding to the sac was considerably depressed, and on removing the latter a deep fossa was seen. The cerebrum was extremely congested. Other organs healthy.

Remarks.—Patient had been insane for nine months, eight of which were passed in this Asylum; and but little previous history could be obtained. She was admitted on the 15th November, 1870, the symptoms being those of mania, but verging on dementia, into which form she hopelessly and quickly lapsed. Two months after admission the power of her lower limbs began to fail, and in six weeks after this there was almost complete paralysis of the left. On the 26th June, 1871, she “had a fit,” which lasted only a few minutes, and on its passing away the left arm was observed to have lost its power. With this exception there were no convulsive seizures. From the first the case was plainly a hopeless one, and treatment was directed with a view to increase the comfort of the sufferer. Restlessness and insomnia were frequent, but always yielded to subcutaneous injections of morphia.*

IV. *Progressive Paralysis and Lung Consolidation.*—E. Q., age 40. Sixty hours after death. The brain and its membranes showed the changes usually met with in well marked cases of progressive paralysis of the insane. The lungs were in that condition known as the third stage of pneumonia; but in the right gangrene was imminent, and must have taken place if life had been prolonged for a few hours. The other organs were healthy.

Remarks.—This case is only interesting as illustrating the extreme rapidity with which the lung in a paralytic passes through the various stages of pneumonia and becomes gangrenous. Four days previous to death the patient showed no evidence of pulmonary complication, yet the autopsy revealed the state of things noted above. In the present state of our knowledge treatment for this form of pneumonia is simply useless. We have never known an instance of recovery from undoubted lung consolidation occurring in the victim of progressive paralysis.

V. *Maniacal Exhaustion and Embolism.*—J. H., age 32. Sixty-one hours after death. All the organs were, to all appearance, perfectly sound, with the exception of the lungs, which were congested; but this congestion should probably be regarded here rather as owing to the mode of dying than as a cause of death. The heart, aorta, and cerebral vessels were carefully examined, and were free from disease. On examining the left femoral artery it was seen to be obstructed by a clot, extending from Poupart’s ligament to about two inches below the origin of the profunda, which was also obstructed for the first two inches of its course. The femoral and the profunda were equal in size, and ran parallel to each other for a short distance. It was remarked that the blood throughout the body was more fluid than usual.

Remarks.—The embolism was diagnosed three days before death, and from the appearance of the clot it did not seem likely that it had existed longer.

At first the mental symptoms were by no means unusually acute, and were regarded as exemplifying a rather typical case of religious

* For the pathology of arachnoid cysts, see Handfield Jones and Sieveking. Several cases are also detailed in the West Riding Asylum Medical Reports.

mania; the patient occupying his time chiefly in praying and preaching. But in a day or two the most wild and furious perversion of mind manifested itself. He now bit his own flesh, tore his bed clothes into shreds, struck whoever came near him with a strength truly maniacal, and dashed himself against the walls of the padded room with ungovernable fury.

His physical strength gave way rapidly, but not owing to want of food, as during the intervals of these paroxysms he could generally be prevailed upon to take a sufficient amount of nourishment.

From the time that the obstruction to the circulation in the limb was noticed, there was a great diminution of the excitement; nevertheless death took place on the eighth day, clearly from exhaustion.

Many things were tried to induce sleep and subdue the excitement. The most successful were brandy and sub-cutaneous morphia.

VI. *Morbus Addisonii, &c.*—E. O., male, age 54. Twenty-two hours after death. Rigor mortis present. But little sign of decomposition. Over the whole body the skin had a peculiar light brown colour, and in several places there were patches of a darker hue, these being particularly distinct on the fore arms and the inside of the left thigh. The cranial contents, with the exception of arachnoid opacity, were normal, or rather appeared to be so. The pleuræ were firmly adherent to the walls of the chest and to the lungs, and the latter were congested, but the congestion was either *post mortem* or had supervened shortly before death. The pericardium contained nearly six ounces of fluid. The weight of the heart was $11\frac{1}{2}$ oz. On opening the left ventricle it was found to be almost filled with a pale fibrinous clot, while the other cavities were more or less distended with semi-fluid blood. The pulmonary valves were much thickened by atheromatous deposit, and the thickening was evidently of long duration. The walls of the large intestines were much attenuated and dilated, except at the sigmoid flexure of the colon, where the opposite conditions were manifest—thickening and contraction. The liver was 73 oz., fatty. The pelvis of the kidneys contained a great quantity of loose fat, but otherwise there was no apparent disease. The left supra-renal capsule was much altered in structure; there was little more to be seen than three thin layers, the middle one of which represented the medullary substance of the capsule, while the cortical portion was harder and lighter in colour than usual. The right one was similar in appearance, but the changes had not proceeded so far. The bladder was very large, and its walls atrophied. There was no stricture of the urethra.

Remarks.—For nearly a year previous to death the general health of this patient had been failing, and although disease of the supra-renal capsules was suspected, it was never altogether certain, as the diagnosis was complicated and rendered difficult by the other ailments.

For a long time the symptoms were not very prominent or acute, and consisted chiefly of lassitude, much increased latterly, and wandering pains in the back and limbs, while towards the end anæmia and marasmus were added. The urine was non-albuminous, and during the last few weeks the lower limbs were œdematous.

So far as we are aware, the connection which exists between disease of the supra-renal capsules and the train of symptoms usually regarded as pertaining to Addison's disease, has never been very satisfactorily traced; but we are convinced that more care in performing *post mortem* examinations would demonstrate the presence of morbid changes in these glands more frequently than is generally supposed.

In two cases, besides this one, the autopsy revealed well marked disorganisation of one or both capsules, but we are not sufficiently a pathologist or microscopist to determine what that disorganisation is, though there can be little doubt that these, like all other organs, are subject to many different diseases.

This case seems also to afford another instance in confirmation of the oft-repeated saying that it is remarkable how diseased organs countenance each other provided they keep pace in their downward march. Here we had disease of the brain, lungs, pleuræ, pericardium, heart, intestines, bladder, capsules, and, probably, kidneys; and in nearly all, the disease was of long standing. The patient was in a state of harmless chronic mania. He had resided in India for many years.

Notes to the 29 Examinations.

1st.—The average weight of the brain was $44\frac{1}{4}$ oz.; the highest was $51\frac{1}{2}$ oz., and the lowest $34\frac{1}{4}$ oz. It was highest in epileptic dementia, and lowest in idiocy.

The specific gravity of the cerebrum varied from 1.037 to 1.053.

2nd.—In five out of the 29 bodies, the ribs were found to be diseased, and so brittle that the least force or rough handling during life must inevitably have fractured them. In two of these many of the ribs consisted merely of the thinnest possible shell of osseous tissue enclosing the medullary substance, which was unusually soft, vascular, and dark-coloured. They could be broken "between the finger and thumb," or divided easily with an ordinary dissecting scalpel. The "Post Mortem Record" states in one case that the ribs "would have given way under no more force than is ordinarily used for inducing artificial respiration."

We are glad to add that in no instance was a fracture of the rib detected, nor, indeed, of any other bone, excepting one of the neck of the femur, and this was known to have existed previous to death. (See "General Report," page 15.)

3rd.—For the entire number of deaths, and causes thereof, see "General Report," Table V.

Medical Memoranda.

We are fortunate in being able to report that the *Annus Medicus* has been an unusually uneventful one. There have been no complaints of either a contagious or infectious nature, and the number of acute inflammatory disorders has been below the average. Cases of sporadic diarrhœa have been less unfrequent than in former years, but they have all easily yielded to treatment, and there is no evidence to lead to the supposition that they were due to any defects in our sanitary arrangements.

Pneumonia.—There have been only five cases of acute pneumonia during the year, which, for us, is an unusually small number, as it is a disease very prevalent amongst the insane. In such persons the state is almost invariably adynamic from the commencement of the attack, and very rapidly assumes a low type. Our treatment, therefore, throughout is one of moderate stimulation, and under it a patient rarely or never dies. In our opinion even moderate venesection would sound the death-knell of such cases, Wunderlich and his recent researches notwithstanding. In these cases the crisis appears to arise more rapidly than when the disease is of a sthenic character, and repeated observation leads us to the belief that the period of critical defervescence arrives not later than the fifth day.

Phthisis.—Seven patients have died during the past year from one or other of the numerous forms of lung-degeneration, which are classified under the head of Phthisis, and thirteen in all were treated for this disorder. All were between the ages of 25 and 50, and the mean approximate duration of the disease in the deaths was as much as five years, which is probably fully two years longer than ordinary. We believe that in most asylums the duration of phthisis will be found to be longer than that amongst the sane population. This may be accounted for in two ways. In the first place—and this probably is the chief reason—the insane must be better cared for, better fed, and subjected to fewer privations than the majority of sane persons afflicted with this fell disease; and secondly, the disease seems to make less rapid progress in the insane, owing to the local physical lesion having but little power of distressing the general economy. This is a very marked and well-known feature in so-called Phthisical Insanity. Several of the patients dying last year had no cough, no night sweats, no diarrhœa, and expectorated no sputa. All the coughing, and hacking, and spitting, so painful to witness in an ordinary case of pulmonary consumption, and which so wears out and debilitates the patient, is more frequently than not absent in a chronic lunatic suffering from phthisis. Moreover, hæmorrhagic phthisis is very rare. Out of

the seven patients who died from phthisis last year, only one had hæmoptysis, and he was in the last stage of the physical disease before the mental symptoms declared themselves.

Dr. C. J. B. Williams has drawn attention recently to the occasional occurrence of disease of the supra-renal capsules in this complaint, but none of the seven cases now under consideration had this complication.

Following the advice of Dr. Aitken, the great aim and object of our treatment has been to foster and cherish an appetite for food. Cod liver oil has been prescribed with marked benefit in many of the cases, and in one or two cases in the first stage of the disease, or with an apparent threatening of it, weight has been gained under the use of the Turkish bath.

Tubercular Diarrhæa has been treated in many cases very successfully with alum and Dover's powder.

Chronic Diarrhæa, occurring in the feeble, the aged, and those in the last stage of brain softening or progressive paralysis, has yielded in most cases to the exhibition of sulphate of copper and opium.

In a case of Dysentery, we used Æij. doses of ipecacuanha with decided advantage.

Skin Diseases.—A case of *impetigo* improved under sulphurous acid, and was apparently cured by the ung: hyd. nit. Cold water was found very advantageous in *chronic eczema* and huile de cade useful in *psoriasis*.

Besides the above we have had to treat, *inter alia*, the following diseases during the year, but they none of them call for any special notice :—

Tonsillitis, leucocythemia (see "Post Mortem Examinations"), menorrhagia, dysmenorrhœa, amenorrhœa, icterus, cancer of uterus and stomach, morbus Addisonii (see "Post Mortem Examinations"), roseola, capillary bronchitis, emphysema, pthyriasis, cardiac diseases, purpura hæmorrhagica, cerebral hæmorrhage, &c., &c.

In the treatment of mental disease, we have not the least doubt in declaring that the hypodermic injection of morphia has been our sheet anchor, whether used in acute mania, acute melancholia, or chronic exaltation. It almost invariably answers where everything else has failed, and so far from helping the poor patient so many steps further down the hill that leads to death,* we can recall several cases wherein it has been the means, not only of prolonging life, but even of saving it, when hope had all but fled.

* See "President's Annual Address to Medico-Psychological Society."

Surgical-Memoranda.

The Surgical Reports of an institution for the insane are generally meagre, and no one can regret this who has ever experienced the difficulty of treating surgical cases in asylum practice. During the last year, however, more than the usual number of accidents has occurred, most of them being trifling, and none leading to a fatal issue. The following only require notice :—

I. *Fracture of Tibia*.—S. H. was kicked and knocked down by a fellow patient, sustaining a fraction of the right tibia, at the junction of the upper two-thirds with the lower third. Its direction was from above downwards, inwards, and extremely oblique ; there being also great tendency to the retraction of the lower fragment. It is uncertain whether the fracture was caused by the blow or the fall ; the patient is convinced it was by the former. The limb was laid on its outer side, with the knee bent, and splints adapted, but it was found impossible to obtain apposition of the fractured ends by these means. A double inclined plane, in the shape of Mac-Intyre's cumbrous apparatus was tried, but with no better success. The leg was then extended, and a back splint with a rectangular footpiece applied. The desired object was thus easily obtained, the limb was slightly raised and slung by means of a cradle. The bone was firmly united in something under the usual time, and the patient walks without the least lameness.

II. *Fracture of Humerus*.—J. C., age 70, was thrown against a sofa by another patient. The right humerus gave way about two inches from the surgical neck. The usual treatment was adopted, and with the most successful results.

III. *Acute Abscess*.—W. H. was observed to walk lamely, and on examination slight fulness was detected over the trochanter major. There was not much tenderness on pressure, but succussion caused pain. At first the diagnosis was uncertain, as hip joint disease was simulated, but in a week the nature of the complaint was evident. A free incision was made, a large quantity of pus escaped, and the cavity was syringed out with a solution of carbolic acid in water. Recovery was rapid and complete.

IV. *Indolent Ulcer. Skin Grafting*.—A. C. had suffered from a large indolent ulcer for some months, if not years. A blister was applied, the hard edges were reduced, and on the ulcer taking on a more healthy action skin grafting was successfully practised. The cure was complete in three weeks.

V. *Scalp Wounds*.—A. B., an attendant, received several severe scalp wounds from a patient. The weapon employed was a broom handle, which was used with such earnestness that it gave way over the man's head. The largest wound was four inches long, and the smallest two inches. In all the bone was freely laid bare,

and in two the edges of the cuts were clean, and as if made with a knife, while in the others they were more or less ragged. The wounds were washed with carbolic lotion, and drawn together with silver sutures. Union by the first intention took place in all. The prejudice formerly entertained against stitching scalp wounds seems groundless, and the bugbear erysipelas quite unnecessarily dreaded.

VI. *Fracture of the Ulna*.—T. R. had his left ulna fractured by being struck with a billiard cue. He raised his arms to protect his head from the impending blow and received the whole force of it on his forearm, about three inches above the wrist. The bone gave way at a corresponding point. Continuity was restored in a few weeks, and no deformity resulted.

VII. *Erysipelas*.—There were many cases of erysipelas of every degree of severity. Some of these were treated with the perchloride of iron, externally and internally; others were left to nature and a suitable diet. They all recovered in about the usual time, and it is by no means certain that medicinal treatment where it was employed in any way influenced the result.

VIII. *Opacity of the Cornea*.—T. P. was admitted totally blind from opacity of the cornea, believed to be of about six or eight months' duration, though the history was imperfect. The suicidal melancholia from which he suffered was referred to the loss of employment and depression of spirits, consequent on his blindness.

The treatment with sulphate of soda, so strongly recommended by Power, and also mentioned by Soelberg Wells, was adopted, and has been persevered in for the last four months, but without any improvement resulting as yet.

IX. *Scrofulous Ophthalmia*.—C. P. E., when admitted to this Asylum, was suffering acutely from scrofulous ophthalmia, evidently of considerable duration. There was intense photophobia, the slightest ray of light causing great pain, and compelling the patient, a youth of sixteen, to pass his time in the darkest corner of the ward, with his hands closely applied to his eyelids. At times the lachrymation was very copious, and soon caused an eruption to appear on the cheeks.

With the exception of an atropine disc occasionally dropped into the eye, topical treatment was, of course, eschewed, and constitutional remedies relied on. Of these, by far the most beneficial were cod liver oil and quinine, the latter given in large and frequently repeated doses. A cure was effected in nine weeks.

X. *Iritis*.—There was only one case of iritis; it was of doubtful, but most probably of syphilitic origin. Dilatation of the pupil with atropine sufficed for the cure, no further treatment being necessary.

Effects of Meteorological Facts on Insanity.

During the last four years an attempt has been made here towards tracing any possible relations which may exist between meteorological facts, and the mental and physical conditions of the insane, and it is the object of this paper to show what has been done in this direction, and to state the inferences which seem fairly deducible from the data obtained during that period.

The following meteorological facts have been carefully recorded, viz. :—

1. Amount of ozone.
2. Direction of wind, and motion in each twenty-four hours.
3. Position and changes of the moon.
4. Solar and terrestrial radiation.
5. Maximum and minimum temperature in the shade.
6. Altitude of barometer, corrected for temperature, and reduced to sea level.
7. Mean daily temperature.
8. Amount of rainfall.
9. Humidity of the air.

Since April 1st, 1868, a record has been kept of the number of deaths and of admissions, of the number of cases in each day of males having fits, of the number of fits occurring among the female epileptics, and, lastly, of the number of patients suffering each day either from mania or melancholia. A summary of the chief of these records is embodied in the chart attached to this paper, in which the blocks and curves represent respectively and severally the total or mean for each month in the period over which these records extend.

Several facts strike one at a glance on looking at this chart.

In the first place the admissions in the winter and summer are much more numerous than in the spring and autumn. Remembering that the patients received here are of the poorer classes, perhaps we may refer the winter admissions to the unequal struggle against poverty, and those of summer to exposure to high solar radiation in out-door work. These points, however, can be only settled by careful examination of each particular case. Should it prove so, I am inclined to think that the summer admissions will turn out to be chiefly maniacal, and those in the winter chiefly of a melancholic character. Professor Brocca has a paper in the number of the "Italian Journal of Nervous Disease," for November, 1870, in which he states that at the Milan Asylum it was found that the number of patients admitted suffering from mania or melancholia

was greatest in the warm months and least in the cold ones, but that the opposite was the case with those suffering from dementia.

However this may be, the chart shows decidedly that the admissions here were more numerous during the very hot years 1868 and 1870, and decidedly less during the cooler year 1871, a year also of less poverty in this county.

Conversely, it appears that the deaths in the hot years 1868, 1870, were less numerous than in the alternate cool years 1869, 1871.

The next feature in the chart is the slight variation of ozone in amount, and its general abundance. There was, however, a period of comparative minimum between Nov., 1869, and Jan., 1871, corresponding with a period of maximum in the admissions. It does not, however, follow that this was more than a coincidence, as exactly the opposite had already occurred during the first nine months of 1868, when the amount of ozone and the number of admissions both reached a maximum.

One step lower down the chart, we come to the two black lines, of which the upper indicates the mean daily number of fits among the female epileptics, the lower the mean daily number of cases of fits among the males. Here we are struck at once by the remarkable parallelism between the curve of solar radiation and the curve of fits among the female epileptics for the year 1868. In this year the great accession of fits occurred during the time of extreme heat from May to October, followed by a marked diminution in the colder months concluding the year. This is succeeded by alternate periods of accession and diminution chiefly opposite to the case of 1868, and presenting increase in the winter and decrease in the summer.

On the male side, where the cases, not the fits, have been registered, there is not scope for illustration to the same extent of the influences which affect them. There was, however, a period of maximum during the hot year 1868, from April to December, corresponding to, but enduring longer than the period of great accession of fits among the females. After this, it is worthy of notice that in the months of January, March, and July, 1869, in February and October, 1870, and in July, 1871, the two curves under consideration converge, while in February, August, and November, 1869, in March, 1870, and in April and August, 1871, they diverge. This convergence and divergence indicate that at certain periods causes, whatever they may be, are in action, which produce opposite effects upon patients of different sexes.

The variation from month to month in the mean daily number of patients suffering from mania and from melancholia is not sufficiently large to indicate much from the curves marked by these on

the chart. It seems, however, clear that in occasional exceptions these two curves (red and blue) move from month to month in opposite (*i.e.*, converging or diverging), rather than in parallel directions, indicating that in most instances the periods favourable to mania are unfavourable to melancholia, and the converse. There are, however, instances the opposite of this, *e.g.*, January and September, 1870, both of which months show an increase in both mania and melancholia, followed in each instance by a decrease in both through the succeeding month.

The chart which has so far been under discussion was prepared in order to detect, if possible, any marked rise or fall for any year, or any special portion of the year in the symptoms of the insane. And this would have certainly been indicated by taking for each month the daily average of fits and relapses, and tracing the corresponding curves. This is manifestly the case with temperature, with thermometers exposed to radiation, or protected from it, as is seen by the yellow, red, and green curves so obtained. But no such result has been obtained as to epilepsy, mania, or melancholia.

I think this result, or failure of result, leads us to suppose that the aggravations or diminutions are not so distributed as to mark certain special seasons of the year, but that they occur at all times, and, therefore, if affected at all by atmospheric facts, are affected by facts of a transient nature. Such aggravations and depressions, the very occasions we want to discuss, are quite lost sight of in a table of averages. They require individual attention, and under such an inspection may perhaps be made to disclose the causes to which they are owing, but in the crowd of an average they lose their individuality, and the special circumstances attending them are in a similar manner lost sight of.

Here we come upon the popular notion so frequently met with that this class of patients have their attacks of fits, mania, or melancholia, more or less intensely "about" the changes of the moon; in fact, the common notion that insane patients are literally *lunatics*.

Now in order to investigate the truth of this prevalent opinion, I have prepared a table which accompanies this paper, and is marked B. It is compiled from a register of 32 patients, who have suffered from fits during the years 1870 and 1871, and of the number of fits they have suffered from in each day during that time. This Table contains the daily average number of patients having fits, and the daily average number of fits for each month of those two years; it also gives the actual number of patients and of fits on each change of the moon, on perigee and on apogee, and their combinations with the changes, then the average for those special days, and lastly the average for the remaining days of each month.

From this Table it appears that there is very little difference to be discovered in this way between the average numbers for those days on which the moon's changes occur, and for the days composing the rest of the months, and what little difference there is in favour of the days on which no such change occurs.

Yet it is possible that such a Table hides a truth. Not only may many combinations occur to shift forward or backward an event like an attack of fits, mania, or melancholia, but, as I before said, the truth may be hidden by taking means, discovered by taking extremes. I have, therefore, gone through the monthly charts of meteorological observations from April, 1868, to December, 1871, inclusive, and have taken out all those days on which any great or moderate accession of fits, maniacal or melancholic cases have occurred, and the peculiarities of each occasion, and will now attempt to discuss these three lists in order.

Special accessions of fits are found to have occurred on 212 occasions. Of these 119 have happened either on the days of the moon's changes, or on the days immediately before or after, while 93 only have occurred on days more distant from such changes. This gives 56 per cent. of all such accessions of fits on days near to or exactly the date of such changes, and 44 per cent. on other days.

The inference I draw from this is that the influence of the moon, if any, in exaggerating certain accessions of fits, or in preventing some periods of freedom from them, is not the sole or chief cause. We must go further, I think, and investigate the conditions of weather on these occasions.

I find, then, upon examination of these 212 accessions of fits, that, with five exceptions, they have been preceded or accompanied by considerable alteration in atmospheric pressure or solar radiation, or both; and here, I believe, lies the clue for which I have been seeking. For it seems to me tolerably clear that when a great fall or a great rise of the barometer, or a great rise or fall of solar radiation occurs—*i. e.*, a decided change from bright to dull weather, or the opposite, or when both the atmospheric pressure and the solar radiation are much disturbed either in the same or contrary directions—an accession of fits invariably occurs. I am led, therefore, to the inference that it is, after all, not the moon which directly affects the epileptic patients, but the change of weather; and that it is the coincidence which not unfrequently occurs, of a change of weather with a change of moon, which has led the popular mind into the notion of the moon affecting both the weather and the epileptics.

The five exceptions alluded to above all occurred in the year 1869, and the particulars are as follows :—

Date. 1869.	Barometer corrected and reduced.	Humidity.	Direction of wind.	Mean motion per hour.	Cloud.	Solar. Radiation.	Mean daily tempera- ture.	Rain.	Ozone.
June 27th.....	30.212 (rising)	57.0	E. by N.	5.1	0	123°.0°	60.3°	.00	10
July 2nd Last quarter of moon.	30.179 (rising)	84.8	N.	6.0	9	123.0°	55.2°	.00	9
August 19th ...	30.334 (rising)	67.0	N.E.	4.2	1	118.5°	57.2°	.00	9
September 8th... Day before thunder.	29.898 (falling)	81.5	S.	5.6	8	120.0°	65.5°	.00	10
October 5th New moon and perigee.	30.212 (rising)	90.9	S.E.	2.8	0	107.0°	53.8°	.00	10

It will be seen that two of these five occasions coincided with changes of the moon, that on each there was a great amount of ozone (although on all but one the wind lay between S.E. and N., the very direction from which at this place we get least), that the temperature in the sun was very high, the mean daily temperature high, no rain, and that on one occasion there was a thunderstorm impending. All these points lead me to the supposition that in each instance, while there was but little alteration of atmospheric pressure, and but little change in the temperature, there must have been some powerful but subtle influence at work, of which I have no record; and the fact that one of these days was followed by a thunderstorm, leads me to the hypothesis that on each of them there was some peculiarity in the electrical condition, and that in this lies the most important, perhaps the only influence, which really affects these patients for better or worse.

We have next to consider the instances of accession of mania. During the same period there have been 126 instances, on 17 of these there have been thunderstorms, heavy gales, or displays of aurora, indicating great electrical disturbance. Of these 126 instances, 76 have occurred on the days of the moon's phases, or on the days immediately before or after, and 50 on the other days, *i.e.*, 60 per cent. of the whole at the time of the moon's changes, and 40 per cent. at other times.

There has been no case of maniacal relapses to any marked extent which has not been immediately preceded by some marked change of atmospheric pressure, solar radiation, or both.

Lastly, there is the list of instances of accession of melancholia. Of these during the same interval, from April 1st, 1868, to December 31st, 1871, inclusive, there have occurred 74 instances, of which 47 have occurred on or close to the moon's changes, and 27 on other days, *i.e.*, nearly 62 per cent. on the former, and about 38 per cent. on the latter, no very great difference from the percentage found in the case of maniacal relapses. I find also that without one single exception these instances of augmented melancholic relapses have occurred after considerable disturbance of atmospheric pressure and solar radiation, either in the same or opposite directions. There is no doubt left on my own mind of the fact that such disturbances are always accompanied by, if not due to, some alteration in the electricity. I find, too, that on ten of these occasions I have records of thunder storms or heavy gales, but I have no means of judging how far similar conditions might have existed at other times when these unmistakable manifestations of disturbance were too far off to be heard or seen, but not too distant to affect the health or to produce mental irritation or depression.

I come, then, to the conclusion that, so far as my own observations go, any marked change of atmospheric pressure, solar radiation, or both, either in the same or contrary directions, is almost certain to be followed by increased number of fits among the epileptics, or by a development of mania or melancholia. Sometimes all three forms of disease will be augmented at once, sometimes only one, and it is deserving of notice here that very often the maniacal and melancholic patients seem to be affected in opposite ways, the latter being well when the former are excited, and the converse.

I am afraid this looks, after all, like very little positive result. I shall be content, however, if I have only been able to indicate the lines upon which future observations must be made. I shall hope to be able now to direct my attention to special series of facts, and by and by to arrive at more definite results. At any rate I believe an effort is being made in a right direction.

Ozone scale, Black line
mean daily amount

Admissions, Red, monthly total

Deaths, Black, monthly total

Fits, Black lines, $\left\{ \begin{array}{l} \text{Upper line mean daily} \\ \text{N}^{\circ} \text{ of fits (females)} \\ \text{Lower line mean daily} \\ \text{N}^{\circ} \text{ of cases (males)} \end{array} \right.$

Mania, Red line, mean daily N^o of cases

Melancholia, Blue line, mean daily N^o of cases

Solar Radiation, Yellow, mean monthly maximum

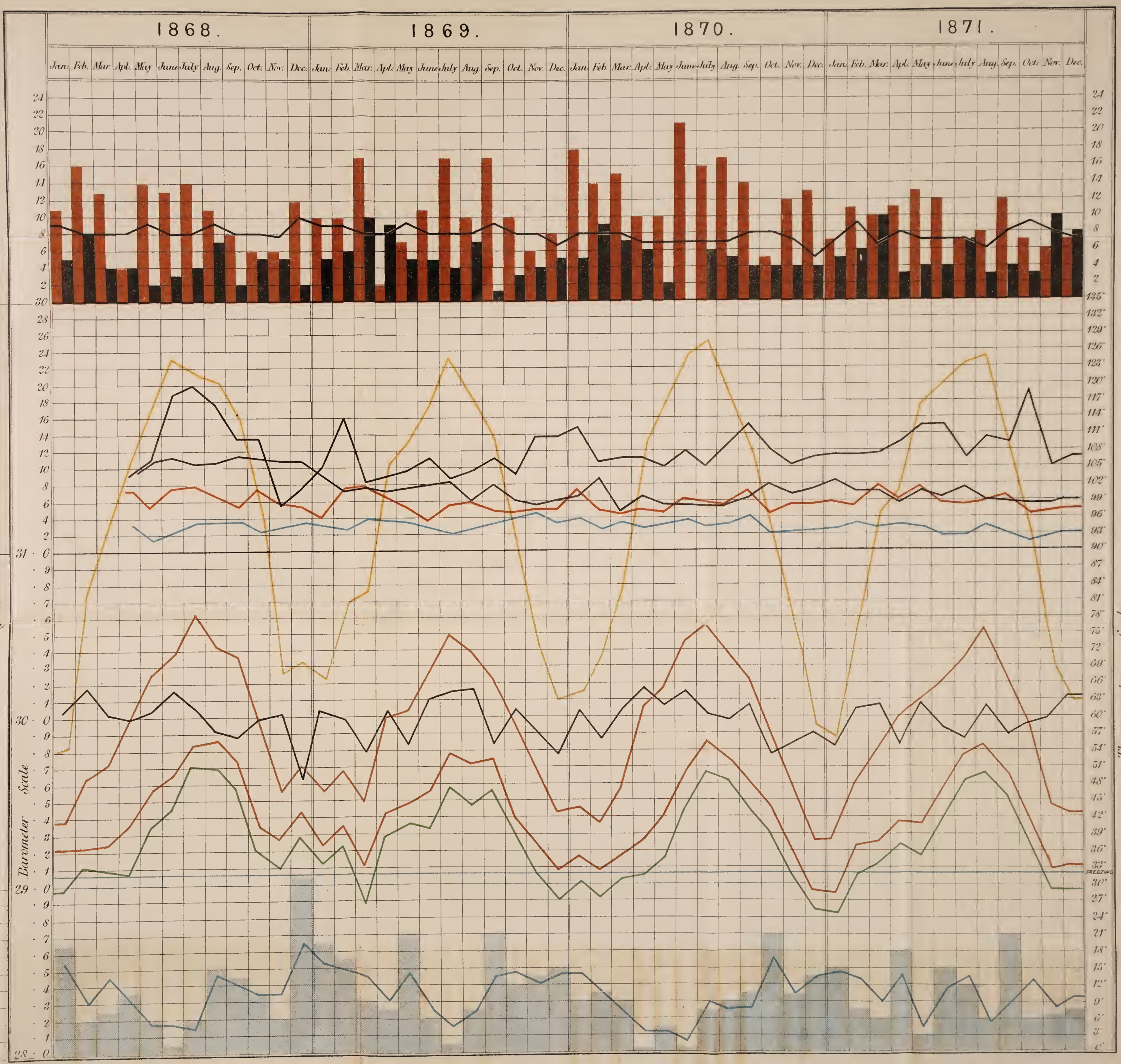
Terrestrial Radiation, Green, mean monthly minimum

Maximum $\left\{ \begin{array}{l} \text{Temperature in shade, Red lines} \\ \text{Minimum} \end{array} \right.$

Barometer, Black line, mean monthly height

Wet days $\left\{ \begin{array}{l} \text{Dark Blue line} \\ \text{Total N}^{\circ} \text{ per month} \\ \text{Each space 4 days} \end{array} \right.$

Rain Scale, Blue blocks
mean daily fall



Months.		Daily Average.		No. on New Moon.		On New and Perigee.	On Perigee.	On First Quarter.		On First Qr. and Apogee.	On Apogee.	On last Quarter.		On full and Apogee.	On Full Moon.	On Full and Perigee.	Average on preceding Days.		Average on other Days.							
Jan....	Patients	6.3	...	7	...	...	7	...	...	5	...	...	7	...	...	7	...	6.1	...	6.3	...					
	Fits.....	...	14.6	...	9	...	...	...	...	8	...	...	...	31	...	...	15	...	13.3	...	14.9					
Feb....	Patients	5.7	...	...	...	...	6	...	5	...	5	...	5	...	...	6	...	5.4	...	5.8	...					
	Fits.....	...	10.5	...	...	...	...	...	...	...	...	15	...	11	...	...	10	...	12.0	...	10.2					
March	Patients	5.7	...	9	...	...	4	...	7	...	3	...	7	...	...	5	...	5.8	...	5.6	...					
	Fits.....	...	10.9	...	19	...	...	...	...	...	...	5	...	13	...	...	6	...	8.1	...	11.6					
April	Patients	5.6	...	4	6	...	...	4	...	...	5	7	...	3	...	...	...	5.3	...	5.7	...					
	Fits.....	...	10.8	...	7	...	...	...	...	...	...	5	10	...	5	...	...	...	8.9	...	11.4					
May...	Patients	5.5	...	5	...	...	5	...	5	...	6	...	5	...	...	5	...	5.1	...	5.6	...					
	Fits.....	...	10.0	...	9	...	...	9	...	...	...	10	...	10	...	...	7	...	9.1	...	10.2					
June	Patients	6.1	...	6	...	...	7	...	6	...	5	...	7	...	...	7	...	6.4	...	6.1	...					
	Fits.....	...	11.9	...	16	...	...	11	...	12	...	...	8	...	9	...	10	...	11.0	...	12.1					
July...	Patients	5.2	...	6	...	...	6	...	6	...	5	...	3	...	...	5	...	5.2	...	5.2	...					
	Fits.....	...	10.1	...	14	...	...	14	...	8	...	...	12	...	4	...	...	...	9.8	...	10.2					
Aug....	Patients	5.8	...	6	...	...	4	...	8	...	...	7	...	7	...	4	...	6.0	...	5.7	...					
	Fits.....	...	12.9	...	12	...	...	15	...	13	...	...	10	...	12	...	...	8	...	11.7	...	13.2				
Sept.	Patients	5.6	...	4	...	...	6	...	11	...	...	4	...	3	...	...	3	...	5.2	...	5.7	...				
	Fits.....	...	14.6	...	12	...	...	12	...	21	...	...	22	...	15	...	...	8	...	15.0	...	11.6				
Oct....	Patients	5.6	...	8	...	...	8	...	6	...	...	6	...	5	...	...	4	...	5.9	...	5.5	...				
	Fits.....	...	11.9	...	17	...	...	16	...	8	...	...	18	...	5	...	...	6	...	11.1	...	12.1				
Nov....	Patients	5.2	...	4	...	...	5	...	7	...	...	...	6	...	7	...	...	5.4	...	5.2	...					
	Fits.....	...	10.3	...	6	...	...	6	...	7	...	...	...	...	7	...	6	...	...	5.4	...	11.1				
Dec....	Patients	5.2	...	4	...	...	4	...	4	...	...	4	...	5	...	...	4	...	4.1	...	5.5	...				
	Fits.....	...	11.1	...	7	...	...	9	...	7	...	...	6	...	9	...	...	...	7.5	...	11.9	...				
Total		67.5	139.6	73	141	...	68	139	73	130	5	8	57	121	63	131	5	6	55	95	8	16	65.9	122.9	67.9	140.5
Average		5.6	11.6	5.6	10.8	...	5.7	11.6	6.1	10.8	5	8	5.2	11.0	5.2	10.8	5	6	5.0	8.6	8	16	5.5	10.2	5.7	11.7

Months.		Daily Average.		No. on New Moon.		On New and Perigee.		On Perigee.		On First Quarter.		On First Qr. and Apogee.		On Apogee.		On Last Quarter.		On Full and Apogee.		On Full Moon.		On Full and Perigee.		Average on preceding Days.		Average on other Days.	
Jan...	Patients	5.6	...	6	...	...	5	...	6	...	...	4	...	4	...	...	8	...	...	5.6	...	...	5.6	...			
	Fits.....	...	11.4	...	12	...	...	8	...	13	...	18	...	12	...	...	16	...	...	...	17.7	...	10.9	...			
Feb....	Patients	6.1	...	5	...	...	6	...	6	...	...	9	...	6	...	...	7	...	...	6.7	...	...	6.0	...			
	Fits.....	...	11.5	...	7	...	...	7	...	9	...	19	...	9	...	...	23	...	...	12.3	...	11.3	...				
March	Patients	5.3	...	5	...	...	6	...	4	...	...	6	...	5	...	...	5	...	...	5.2	...	...	5.3	...			
	Fits.....	...	11.8	...	13	...	...	16	...	5	...	8	...	11	...	...	17	...	...	11.7	...	11.8	...				
April	Patients	5.6	...	4	...	...	3	...	7	...	...	5	...	5	...	...	6	...	...	5.0	...	...	5.7	...			
	Fits.....	...	13.0	...	11	...	...	7	...	12	...	9	...	8	...	...	11	...	...	9.7	...	13.8	...				
May...	Patients	5.6	...	7	...	...	6	...	6	...	...	5	...	6	...	...	3	...	...	5.5	...	...	5.7	...			
	Fits.....	...	14.8	...	17	...	...	16	...	19	...	15	...	9	...	...	6	...	...	13.7	...	15.1	...				
June...	Patients	6.0	...	4	...	...	...	...	9	...	...	5	...	6	...	...	...	...	...	5.8	...	...	6.1	...			
	Fits.....	...	14.7	...	9	...	...	...	...	18	...	11	...	13	...	...	...	15	...	13.2	...	15.0	...				
July...	Patients	5.8	...	5	...	...	6	...	5	...	...	5	...	5	...	...	6	...	...	5.4	...	...	5.9	...			
	Fits.....	...	11.1	...	8	...	...	10	...	13	...	7	...	15	...	...	7	...	...	10.0	...	11.5	...				
Aug....	Patients	6.3	...	6	...	...	5	...	6	...	...	7	...	7	...	...	7	...	...	6.4	...	...	6.2	...			
	Fits.....	...	13.4	...	13	...	...	8	...	15	...	19	...	12	...	...	18	...	...	14.1	...	13.2	...				
Sept....	Patients	5.9	...	5	...	...	7	...	3	...	...	5	...	7	...	...	3	...	...	5.0	...	...	6.1	...			
	Fits.....	...	13.0	...	14	...	...	10	...	8	...	10	...	18	...	...	11	...	...	12.0	...	13.3	...				
Oct. ...	Patients	6.2	...	9	...	...	6	...	5	...	...	6	...	6	...	...	5	...	...	6.1	...	...	6.2	...			
	Fits.....	...	19.3	...	32	...	...	17	...	10	...	27	...	24	...	...	12	...	...	20.3	...	19.0	...				
Nov....	Patients	5.5	...	6	...	...	6	...	4	...	...	6	...	6	...	...	4	...	...	6.0	...	...	5.4	...			
	Fits.....	...	9.9	...	9	...	...	8	...	8	...	11	...	12	...	...	7	...	...	9.7	...	10.0	...				
Dec....	Patients	5.5	...	...	...	6	...	...	6	...	...	...	...	4	...	5	...	...	...	5.2	...	...	5.6	...			
	Fits.....	...	10.9	...	...	9	...	...	...	11	...	...	...	6	...	14	...	...	...	10.0	...	11.1	...				
Total		69.4	154.8	62	145	6	9	62	120	67	138	...	79	181	67	149	5	14	54	128	5	15	67.9	154.4	69.8	156.0	
Average.....		5.8	12.9	5.6	13.2	6	9	5.6	11.7	5.6	11.5	...	6.1	13.9	5.6	12.4	5	14	5.4	12.8	5	15	5.66	12.87	5.82	13.00	

